Actuarial Services
Risk-Adjusted Rates for Adults

State of Indiana
Division of Mental Health and Addiction
Family and Social Services Administration

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Introduction

The Division of Mental Health and Addiction (Division), Indiana Family and Social Services Administration, is a managed care purchasing agent. It purchases services through a network of community providers that function as managed care organizations. These providers are certified by the Division and provide services themselves and through contracts with other providers.

Funds for community services are allocated to regions within Indiana that are established by the Division using a formula based on the proportion of Indiana's population in the region and the proportion of the population with incomes at or below 200 percent of the federal poverty level. The funds allocated to a region form a pool from which managed care providers are paid case rates.

Case rates have been established for all populations served with Division funds and risk-adjusted for the two major populations—adults with a serious mental illness (SMI) and adults with chronic addictions (CA). Annual rates are paid prospectively by the Division upon the enrollment of an individual. The amount paid to the managed care provider is not prorated based on the point during the year that an individual enrolls.

For many individuals served by managed care providers, case rates supplement revenue received from other sources. These sources include, but are not limited to Medicaid, Medicare, and county contributions.

Enrollment in the Division's client system occurs at the time of first service and ends on June 30 of each year. Re-enrollment of those receiving services on or before June 30 occurs on July 1. As a result of this, and the fact that there is a finite pool in a region from which managed care providers may draw case rates, the majority of enrollments occur toward the beginning of each fiscal year. (A fiscal year is July 1 of one year through June 30 of the next.)

As part of enrolling in the system, all adults are assessed using a standardized instrument to determine their level of functioning. The Hoosier Assurance Plan Instrument for Adults (HAPI-A) is used for those 18 years of age and older. It has good psychometric properties and has its foundations in instruments that have been used extensively with similar populations to those in Indiana.

In March 2001, the Department of Administration, in conjunction with the Family and Social Services Administration, issued a Broad Agency Announcement for the provision of actuarial services. The purpose of this announcement was to seek a contractor to do the following:

- review and, if necessary, revise the present risk-adjusted groups;
- study the appropriateness of current risk-adjusted groups, and, if necessary, develop new ones;
- develop case rates where applicable;
- determine the appropriateness of reinsurance; and
- work with stakeholders to develop consensus during this process.

A draft report was expected in March 2002. The Division requested that a final report for the actuarial work with the adult population be provided by April 1, 2002. The present report constitutes that report.

This report consists of three sections. The first section describes the methodology used to develop risk-adjusted groups and presents the groups that were developed. The second section describes the methodology used to develop the case rates and presents the rates that were developed. The final section presents the consensus development process.

Development of Risk-Adjusted Groups

The Division requested the review and refinement of current risk-adjusted groups and exploration of the development of other risk-adjusted groups for the following populations:

- Adults with serious mental illness (SMI);
- Individuals with chronic addictions (CA);
- Women with a chronic addiction who are pregnant or with dependent children (SWD);
- Individuals with serious mental illness moved from state hospitals under the state-operated facility agreement type (SOF);
- Individuals with a compulsive gambling addiction (GAM);
- Individuals enrolled by providers under referrals from the Department of Workforce Development (WD);
- Individuals who are deaf and also seriously mentally ill (DMI) or chronically addicted (DCA);
- Individuals with co-occurring disorders of serious mental illness and chronic addictions (CM);
- Methadone only (SMO); and
- Special arrangement (SPL).

These populations are defined in the manual entitled "Fiscal Year 2001 Data Requirements." The agreement definitions can be found in Appendix 1 of this report. The definitions, in general, include DSM criteria, functional impairments as measured by the HAPI-A, and other criteria, such as the duration of symptoms.

Methodology

The methodology that was used for the review and development of risk-adjusted groups consisted of:

- Data Preparation,
- Identification of Risk Characteristics and Factors,
- Factor Analysis of the HAPI-A,
- Regression Analysis for Evaluating the Present Risk-adjusted Groups, and
- Regression Analysis for Developing Alternative Risk-adjusted Groups.

Data Preparation

Understanding the Data

The data used were all FY 2001 data in the Community Services Data System (CSDS) provided by the Division. The CSDS collects and tracks data from all managed care providers for individuals who qualify for the Hoosier Assurance Plan (HAP). The CSDS, a fully integrated system that supports electronic transmission of data and claims reporting, captures key data, such as individual enrollment, assessment information, service utilization, encounter values, and revenue amounts for each enrolled HAP individual.

In October 2001, William M. Mercer, Incorporated (Mercer) requested the data from the CSDS required for the analysis. A relational database was received in November 2001, which included enrollment, initial assessment, and encounter/service and revenue data for all qualifying HAP eligibles enrolled from July 1, 2000 through June 30, 2001 (FY 2001).

Mercer validated the control totals (i.e., number of records for each table within the database) with the Division and consulted with the Division's information technology and technical staff to develop a better understanding of the data. This included understanding each of the data tables, the data elements and their descriptions, and any known issues relating to the completeness and reasonableness of the data. Subsequently, Mercer conducted a quality and reasonableness check to examine the overall data integrity, especially variables that were used in constructing the original risk-adjusted groups.

Cleaning the Data

During the process of developing an understanding of the data and quality checks, Mercer identified several issues. In consultation with the Division, a number of data assumptions and adjustments were made that resulted in the exclusion of individuals with missing essential data and/or removal of inappropriate service encounter records prior to constructing a database for risk adjustment modeling.

Individuals with Missing Encounters: There were 5,226 individuals who did not have encounter services reported by providers in the CSDS for FY 2001. Mercer examined those individuals by agreement type and by providers to explore possible reporting trends. It was decided, in consultation with the Division, to exclude those individuals from the study as it was not possible to generalize service utilization for those missing encounters with certainty.

Invalid Primary Diagnosis: There were 13 individuals who had invalid/unknown primary diagnoses that could not be found in either DSM-III-R or DSM-IV. Since diagnosis was an important variable in the algorithm used in Mercer's previous study to determine risk payment, those individuals were excluded from the present analysis.

Excluded Services: Mercer was advised by the Division to remove the 94 service records for State Hospital Admission (HSOFA) and State Hospital Discharge (HSOFD) from the case rate analysis.

Encounter Records with Zero and Negative Unit: It was assumed, as a result of consultation with the Division, that the encounters with zero or negative units and values were "deleted and adjusted" service records for previous incorrect service reporting by providers. As a result, no adjustment was made to those service encounters.

Encounters Reported Prior to Enrollment: There were 621 individuals with encounters recorded prior to their enrollment dates in the database prepared by the Division. It was not clear if there was an error in the enrollment date for those individuals. As a result of consultation with the Division, the decision was made to include the encounters of those individuals in the analysis.

Duplicated Encounter Records: About 14 percent of the 3.2 million service encounters were found to be duplicates. The inclusion of the duplicates resulted in unreasonable gross costs for certain individuals. As a result, duplicated records were removed.

Miscoding for Encounter Value: The Division believed that there might be inaccurate provider reporting on the value of encounters where the unit rates did not appear to be appropriate for certain services, apparently as a result of misplaced decimals in claims reporting. For example, the unit cost of individual psychotherapy for a 45 – 50 minute session was calculated as $13,000. In these cases, decimals were placed in appropriate places for the service provided. This adjustment impacted 33 unique service procedures and 1,091 encounters.

Miscoding for Encounter Unit: In examining inflated unit costs on certain services, the Division believed that there might be inaccurate provider reporting on encounter units. About 37 procedure codes were identified with unreasonable costs per unit of service. Mercer introduced adjustment factors provided by the Division to fix those encounters, except for contracted inpatient service (780) and group-related therapy services (90849, 90853, 90857, H9082, W9082, X3043, X3044, X3045, and X3049). Mercer examined the exceptions and decided to use the encounter values as part of the gross cost calculation.

After applying all of the above adjustments, about 8 percent (from 61,723 to 56,486) of the individuals were removed from the analysis. Likewise, about 14 percent (from 3,186,838 to 2,725,070) of service encounters were excluded from our analysis. Table 1 presents the number of individuals before and after the cleaning, as well as the percent reduction in each agreement type.

Table 1: **Number of Unique Individuals, by Agreement Type, Before and After Data Cleaning, and the Percent Change**

Agreement Type		Before Cleaning	After Cleaning	Percent Change
CA	Chronic Addition	20,421	17,628	-14%
DCA	Deaf (Hearing) — Chronic Addiction	6	5	-17%
DMI	Deaf (Hearing) — Mental Illness	114	87	-24%
GAM	Gambling Addiction	122	117	-4%
SMO	Methadone Only	486	263	-46%
SMI	Serious Mental Illness	38,191	36,311	-5%
SOF	State Operated Facility (Discharges)	142	125	-12%
SPL	Special Arrangement	1	1	0%
SWD	Chronically Addicted Women	2,234	1,944	-13%
WD	Workforce Development	6	5	-17%
Total		61,723	56,486	-8%

It is important to note that individuals were initially categorized into different groups as identified in the agreement type in the database. Mercer examined the primary diagnosis of each individual and found some did not meet the definition required for a specific agreement type (e.g., an individual with a primary diagnosis of serious mental illness was coded as a substance abuser). As a result, the final grouping for risk modeling may vary slightly from the above table due to the shift of some individuals between groups.

Gross Cost Determination

To be consistent with the methodology that was used to establish the risk-adjusted groups in Mercer's previous actuarial study and to address the limitation of "service value" in the data system because of the difference in rates charged by providers, Mercer created a synthetic cost variable (gross service cost). This variable was developed by determining the standard rate of reimbursement that Medicaid or the Division would provide for the delivery of a particular service. The purpose of this variable is to provide a measure of overall service utilization for risk modeling. It is important to note that this variable does not represent the cost to providers for a service; rather, it represents what would have been charged based on a market rate primarily driven by Medicaid.

In consultation with Medicaid and the Division, the FY 2001 Medicaid fee schedule was used for the calculation of gross service cost for Medicaid services. For non-Medicaid services (e.g., substance abuse treatment, employment-related services), Mercer developed an average gross service cost based on the encounter values and units reported by providers.

It is important to note that all 14 Medicaid Rehabilitation Option (MRO) services (all X codes, W9082, and Z5025) and MRO services provided by a non-MRO provider (H3040 … H3048, H9082, H3049, H3050, H3052, H4000, and H4010) were provided by community mental health centers and delivered by non-medical professionals. As advised by the Division, the gross service calculation for those MRO services was adjusted to reflect a 25 percent reduction in the

value on the Medicaid fee schedule (e.g., $19.60 for 15 minutes of case management delivered by non-MD professional as compared to $26.14 for a MD under the Medicaid fee schedule).

Once the market rate for each service was established (see Appendix 2), the total gross service cost was calculated for each individual for FY 2001. The number of individuals who had reported encounters, but had zero gross service cost, was 245. Mercer consulted with the Division for reasonableness and applied a base gross service cost of $60 to this group.

At this point, all individuals with reported encounters had a gross service cost. Mercer then adjusted for outliers. Outliers were identified as those individuals that had an unusually low or high total gross service cost. These thresholds were defined as gross costs less than $60 and greater than $150,000. The results of this normalizing process are as follows:

- The 2,512 individuals who had gross costs less than $60 now have gross costs of $60; and
- The five individuals who had gross costs greater than $150,000 now have gross costs of $150,000.

To validate the results of this gross service cost calculation for Medicaid services, Mercer asked the Medicaid department to conduct a query of their database for the Medicaid expenditures reported by community mental health centers for HAP adults in FY 2001. Mercer totaled $104 million in gross service cost for Medicaid reimbursable services. This number was considered sufficiently close to the $97 million reported by the Medicaid department.

In the previous analysis, Mercer used quarterly gross service costs to address the lag in claims that might be associated with having only one year of data available. To address this issue and be consistent with the previous methodology, Mercer used the monthly gross service cost as a proxy to measure the service utilization in the analysis. The monthly gross service cost was determined by dividing the total gross service cost by the number of months in which services were provided.

Two measures of service cost were created: (1) Monthly Gross Service Cost and (2) Total Net Service Cost. The monthly gross service cost was used as a proxy to test the strength of cost homogeneity in the risk modeling analysis. The total net service cost was used as part of the case rate pricing for each risk-adjusted groups and consisted of the gross service cost minus other revenue from sources other than the Division.

Identification of Risk Characteristics and Factors

In Mercer's previous study, a thorough literature review of factors associated with differences in service utilization (e.g., age, gender, diagnosis, socioeconomic status, martial status, and poverty) was conducted. Mercer introduced those risk variables and applied them to the FY 1997 HAP data in that study. Subsequently, risk factors were identified and tested in the model to develop the existing risk-adjusted groups used by the Division. This strategy was also used in the present analysis.

Literature Review: The literature review was updated. No new variables emerged beyond those used in the last analysis. It should be noted that variables associated with service utilization that were not contained in the CSDS could not be used.

HAPI-A: This instrument was developed by the Division to support the recovery model of self-management and community functioning. It is used to evaluate the level of functioning for each adult HAP enrollee at enrollment and subsequent 90-day reassessment periods. It consists of 20 questions with 7 ratings for each, ranging from 7, which indicates no difficulty, to 1, which indicates the highest level (severe) difficulty. The instrument yields 6 domain scores for the following factors:

1. Factor 1: Symptoms of Distress and Mood (3 questions);
2. Factor 2: Physical and Health Status (1 question);
3. Factor 3: Community Functioning (4 questions);
4. Factor 4: Social Support (4 questions);
5. Factor 5: Risk Behavior and Substance Use (7 questions); and
6. Factor 6: Reliance on Mental Health Services (1 question).

SMI and CA Co-Occurring Disorder Indicator: To identify individuals appropriate for inclusion in the co-occurring disorders group, Mercer identified various variables in the FY 2001 database that were considered to be indicators. These included the primary and secondary diagnoses, substance abuse profile, prior history of substance abuse episodes, and substance abuse specific service utilization in the encounter file.

While examining the primary and secondary diagnoses, Mercer defined a range of specific codes from the DSM-IV that were considered to meet the definition of "serious mental illness" and "substance abuse." Serious mental illness includes schizophrenia, major depressive disorders, bipolar disorders, mood disorder NOS, delusional disorder, and psychotic disorders (i.e., 295.xx to 298.xx). Substance abuse includes alcohol and other drug abuse and dependence, except for nicotine dependence and caffeine intoxication, as well as substance-induced disorders (i.e., 303.xx to 305.xx, excluding 305.10 and 305.90, or 291.xx or 292.xx).

For the substance abuse profile, Mercer included the primary, secondary, and tertiary choice of drugs, such as alcohol, marijuana, heroin, PCP, methamphetamine, inhalants, and barbiturates. Other secondary data included in the algorithm used to identify individuals with a co-occurring disorder included prior substance abuse treatment episodes and encounters for substance abuse services. For the latter, Mercer included all the drug screening, inpatient, residential and

outpatient substance abuse services (i.e., H0004 to H0020, H0220, H0230, H0180, 80101, and 80100).

Taken together, the algorithm for inclusion in the co-occurring disorders group included:

- Primary Diagnosis;
- Secondary Diagnosis;
- Substance (Primary, Secondary, or Tertiary);
- Prior Substance Abuse Treatment Episodes; and
- Substance Abuse Encounter Utilization.

Statistical Analyses

Mercer constructed an SPSS data file for the purpose of the analysis. This file included all the key variables of patient demographics, socioeconomic status, level of functioning, gross service cost (total and monthly), and the co-occurring disorder indicator. As part of this SPSS data file, the primary and secondary diagnoses were further classified into eight diagnostic categories as follows:

- Schizophrenia;
- Bipolar Disorders;
- Other Mood Disorders;
- Stress or Adjustment Disorders;
- Organic Disorder;
- Personality Disorders;
- Substance Abuse; and
- Other.

The approach to the statistical analysis included three major procedures:

1. Factor analysis of HAPI-A;
2. Regression analysis to examine the existing risk-adjusted groups using FY 2001 data; and
3. Regression analysis in developing alternative risk-adjusted groups.

Mercer conducted these analyses separately for the SMI, CA, SWD, SOF, and SMO populations. Throughout the process of risk modeling, Mercer also examined the SOF group to determine whether or not it could be merged into the risk-adjusted SMI group. Mercer also examined if the sub-populations of SMO and SWD could be merged into the CA category for ease of administration.

Mercer also conducted statistical modeling with the group of individuals who had co-occurring disorders. The purpose was to test if the homogeneity of the gross service cost was similar to the existing SMI or CA risk groups or was different enough to warrant the development of new risk factors.

Statistical analyses were not performed for the compulsive gamblers (GAM = 117) and individuals who are deaf and also seriously mentally ill or chronically addicted (DMI = 87 and DCA = 5). The primary reason is that there are not enough individuals in these groups to risk-adjust them with any confidence. Mercer was informed by the Division that no statistical analysis was needed for individuals who were referred from the Department of Workforce Development (WD = 5) and a single individual described as "SPL."

Factor Analysis of HAPI-A

The first statistical procedure employed was a factor analysis of the HAPI-A using FY 2001 data. The purpose of the factor analysis was to identify other possible subscales that could best describe the level of functioning for the current population. For the subscales that emerged as a result of this analysis, Mercer compared them to the sets of subscales that had previously been developed to determine if they represented a significant improvement.

Before conducting the factor analyses, Mercer normalized the scores on the subscales of the instrument. This ensured that subscales with more items than others were not given a disproportionate weight in the analyses because of the additional items.

In conducting the factor analyses, each targeted population was divided into several exhaustive and non-duplicative random samples. Parallel factor analyses were conducted on the samples and factors that appeared consistently across the samples were used to characterize the level of functioning for that population. Based on these analyses, one or two sets of factors were identified for each population and a weighted score for each factor was created.

Regression Analysis in Evaluating the Current Risk-adjusted Groups Using the FY 2001 Data

For the SMI, CA and SWD populations, Mercer evaluated the existing risk-adjusted algorithms to determine whether or not the already established risk groups were the strongest groups for use with the FY 2001 data. The second statistical procedure was to create a separate regression model using the existing algorithm (i.e., diagnosis, age, level of functioning, drug choice) for each targeted group and to load the FY 2001 data into the model that predicted the gross service cost.

Mercer consulted with the Division about the results of this exploratory analysis to determine whether or not the existing risk-adjustment algorithms warranted further refinement. Additional comments were also sought from the advisory group and in a public meeting.

Regression Analysis in Developing Alternative Risk-adjusted Groups

After conducting regression analyses using the variables that form the present risk-adjusted groups, Mercer used other variables in further regression analyses and compared the strength of these variables to that of the original sets in predicting service cost. The purpose of this analysis was to determine if alternative risk models should be used.

The statistical analyses addressed the following policy issues:

- Do the existing SMI risk-adjusted groups require modifications?
- Should SOF be included in the SMI category?
- Should individuals with co-occurring disorders be included in the SMI category?
- Do the existing CA risk-adjusted groups require modifications?
- Should SWD be included in the CA category?
- Should SMO be included in the CA category?
- Should individuals with co-occurring disorders be included in the CA category?
- Should there be a separate risk group for individuals with co-occurring disorder?
- Should there be a separate group for SOF?

Results

To guide the process of risk modeling to validate the established risk groups or to formulate alternative risk-adjusted groups, a set of decision rules were used that were congruent with the previous study. Very briefly, the decision rules were:

- The number of groups in each population were kept low to keep administrative burden low and to reduce the tendency for individuals to migrate to a higher level than appropriate.
- Since it is expected that the distribution of each population contains many individuals with low cost and few with high cost, the high cost groups were made small and the low cost groups large.
- The differences in gross cost between groups in a particular population were maximized to make them as clear-cut as possible and to further reduce the tendency for individuals to migrate to a higher level than appropriate.
- Groups were not set up based on a single subscale on the functional assessment measures, as this might encourage inappropriate migration to a higher group.
- Ordering of groups had to make sense; lower functioning individuals should have a higher cost than those who are higher functioning.
- New risk-adjusted groups had to represent a significant enough improvement over the existing groups to warrant the administrative and information systems changes required to implement them.

As a result of the statistical analyses, Mercer reviewed and refined the risk-adjusted groups established for SMI, CA, and SWD. Additionally, a new risk-adjusted group was developed for CM.

Mercer examined other populations and concluded that risk-adjusted groups were not feasible or appropriate for:

- SMI moved from state hospitals under the "SOF" agreement type (SOF),
- DMI or DCA,
- SMO, and
- GAM.

Finally, Mercer did not evaluate the data for five individuals who were referred from the WD. The Division advised that the program was discontinued.

The following sections provide the detailed results of Mercer's analyses.

Adults with Serious Mental Illness (SMI)

There were 34,419 SMI adults included in this analysis. Using the existing risk-adjusted algorithm (i.e., diagnostic group and level of functioning), Mercer used the FY 2001 data to determine whether or not the current model required modification. Table 2 represents the average monthly gross costs and number of individuals in each of the nine risk-adjusted cells generated by using the existing algorithm.

Table 2: Adults with Serious Mental Illness (SMI)—Existing Algorithm

Diagnostic Group		Level of Functioning 2001			
		Low	Moderate	High	Total
Psychosis	Avg Monthly Gross Cost	$1,190	$1,255	$711	$910
	Individuals	163	3,061	5,521	8,745
Bipolar and	Avg Monthly Gross Cost	$771	$642	$360	$462
Personality	Individuals	143	2,008	3,967	6,118
Mood, Stress,	Avg Monthly Gross Cost	$382	$377	$224	$275
Organic, and Other	Individuals	413	6,011	13,132	19,556
Total	Avg Monthly Gross Cost	$642	$668	$367	$469
	Individuals	719	11,080	22,620	34,419

	Percent of Total 2001			
	Low	Moderate	High	Total
Psychosis	0.5%	9%	16%	25%
Bipolar and Personality	0.4%	6%	12%	18%
Other	1.2%	17%	38%	57%
Total	2.1%	32%	66%	100%

It was noted that only 2.1 percent (719 out of 34,319) of individuals fell into the low functioning category. Further, the average monthly gross cost for individuals with psychotic disorders and moderate level of functioning ($1,255) was somewhat higher than the same group with a low level of functioning ($1,190). In general, the average monthly gross cost was very similar for individuals who had either low or moderate levels of functioning. This finding suggested that the current HAPI-A factor scores required modification.

Mercer examined the factor scores of this group and evaluated alternative domain factors and cutoff points. A factor analysis confirmed the utility of the same configuration of two dimensions of functioning as in the previous study. The first domain factor was based on (1) symptoms of distress and mood; (2) health and physical status; (3) community functioning; (4) social support, social skills, and housing; and (5) reliance on mental health services. The second domain factor was risk behavior and substance use.

The factor analysis did suggest, however, alternative cutoff points for the two domain factors used to determine levels of functioning (i.e., low, moderate, and high). When the cutoff points were shifted and regression analyses conducted, it was found that these shifts yielded more predictive power to distribute the gross cost among the risk-adjusted cells.

For the purposes of statistical modeling, persons with a primary diagnosis of schizophrenia, delusional disorder, shared psychotic disorder, brief psychotic disorder, or psychotic disorder NOS (i.e., 293.81, 293.82, 293.89, 295.xx, 297.1, 297.3, 298.8 or 298.9) were classified as "Psychosis." The "Bipolar and Personality" diagnostic group included diagnoses of bipolar I disorder, bipolar II disorder, personality disorders, or depressive disorder (i.e., 293.83 296.0x, 296.40 – 296.89, 301.0, 301.20 – 301.9, or 311). All other diagnoses that were not considered as "Psychosis," "Bipolar and Personality," and "Substance Abuse" were placed into the "Mood, Stress, Organic, and Other" diagnostic group.

Table 3 depicts the monthly gross cost resulting from the use of alternative cutoffs for the two domain factors.

Appendix 3 contains a flowchart illustration of the alternative risk adjustment model for the SMI category in which case rates were developed.

Table 3: Adults with Serious Mental Illness (SMI)—Alternative Algorithm

Diagnostic Group		Level of Functioning 2001			
		Low	Moderate	High	Total
Psychosis	Avg Monthly Gross Cost	$1,509	$1,154	$780	$910
	Individuals	470	2,135	6,140	8,745
Bipolar and	Avg Monthly Gross Cost	$941	$514	$397	$462
Personality	Individuals	366	1,689	4,063	6,118
Mood, Stress,	Avg Monthly Gross Cost	$431	$353	$237	$275
Organic, and Other	Individuals	874	4,833	13,849	19,556
Total	Avg Monthly Gross Cost	$836	$582	$403	$469
	Individuals	1,710	8,657	24,052	34,419

	Percent of Total 2001			
	Low	Moderate	High	Total
Psychosis	1.4%	6%	18%	25%
Bipolar and Personality	1.1%	5%	12%	18%
Other	2.5%	14%	40%	57%
Total	5.0%	25%	70%	100%

Individuals with Serious Mental Illness moved from State Hospitals under "SOF" Agreement Type

There were 121 individuals in this group in the analysis. Mercer applied the existing algorithm for SMI to these individuals to test how well it fit. Table 4 shows the average gross cost for this population when that algorithm is used.

Table 4: Individuals with Serious Mental Illness moved from State Hospitals under "SOF" Agreement Type

Diagnostic Group		Level of Functioning 2001			
		Low	Moderate	High	Total
Psychosis	Avg Monthly Gross Cost	$4,220	$4,838	$4,557	$4,760
	Individuals	1	78	27	106
Bipolar and Personality	Avg Monthly Gross Cost		$2,297	$6,971	$3,336
	Individuals		7	2	9
Mood, Stress, Organic, and Other	Avg Monthly Gross Cost		$5,045	$3,267	$4,452
	Individuals		4	2	6
Total	Avg Monthly Gross Cost	$4,220	$4,647	$4,629	$4,639
	Individuals	1	89	31	121

	Percent of Total 2001			
	Low	Moderate	High	Total
Psychosis	0.8%	64%	22%	88%
Bipolar and Personality	0.0%	6%	2%	7%
Other	0.0%	3%	2%	5%
Total	0.8%	73%	26%	100%

It is important to note that the average monthly cost is significantly higher ($4,639) compared to the SMI group ($469) when the same algorithm is used. The average gross cost was about $37,000 per case using the FY 2001 data. Due to the small number of individuals (n=121) and the potentially high service needs, it is recommended that this special sub-population be treated as a discrete group. A risk payment method is not appropriate for this group.

Individuals with Chronic Addiction (CA)

Mercer conducted risk modeling with the 17,013 individuals who met the definition of CA. The FY 2001 data were used with the existing model (i.e., age group, level of functioning, and primary substance preference) that defines the risk-adjusted payment for chronic addiction. Table 5 depicts the average monthly gross service cost for each of the nine risk-adjusted cells using this model.

Table 5: Individuals with Chronic Addiction (CA)—Existing Algorithm

Primary Substance/Age		Level of Functioning 2001		
		Low	High	Total
Cocaine/Crack/ Heroin—All Ages	Avg Monthly Gross Cost	$872	$588	$641
	Individuals	415	1,823	2,238
Other Drugs— 18 to 34 years	Avg Monthly Gross Cost	$828	$356	$397
	Individuals	733	7,777	8,510
Other Drugs— 35+ years	Avg Monthly Gross Cost	$882	$417	$484
	Individuals	892	5,373	6,265
Total	Avg Monthly Gross Cost	$861	$407	$461
	Individuals	2,040	14,973	17,013

	Level of Functioning 2001		
	Low	High	Total
Crack/Cocaine/Heroin	2.4%	11%	13%
Other/18 to 34	4.3%	46%	50%
Other/35+	5.2%	32%	37%
Total	12.0%	88%	100%

The results of this regression analysis show similar average monthly gross costs for individuals with a low level of functioning who were cocaine/crack/heroin users ($872), 18 – 34 year olds that used other drugs ($828), and over 35 year olds who used other drugs ($882). It appeared that the current risk model required modification since it did not differentiate between groups.

Mercer re-examined the level of functioning in the factor analysis and introduced other risk variables in the regressions. Factor analysis of subscales on the HAPI-A yielded the same two dimensions of domain factors as in the previous study. The first domain factor was based on (1) symptoms of distress and mood; (2) community functioning; (3) social support, social skills, and housing; and (4) risk behavior and substance use. The second domain factor was based on (1) health and physical status and (2) reliance on mental health services.

Living condition emerged as an important variable in the regressions for the prediction of gross service cost. When combined with the risk variables of level of functioning and primary drug choice, it represented a new risk-adjusted grouping.

Mercer developed two levels of living condition (i.e., At Home versus Not at Home) from the living arrangement data field of the CSDS. "At Home" status includes living at home (5) or independent living (3). "Not At Home" status includes persons who are homeless (1), living out of home (2), or incarcerated (4).

Consistent with the previous actuarial study, Mercer defined "Crack/Cocaine/Heroin" users based on the primary substance data field coded as either 3 or 5 in CSDS. All other coding (e.g., Alcohol, PCP, Barbiturates) will be considered primary substance choices other than "Crack/Cocaine/Heroin" (i.e., No Crack/Cocaine/Heroin).

Mercer introduced the new mix of risk factors (i.e., living condition, level of functioning, drug choice) into the regressions. Table 6 shows the average monthly gross service cost for each of the four risk-adjusted cells.

Table 6: Individuals with Chronic Addiction (CA)—Alternative Algorithms

Living Condition/Substance		Level of Functioning		
		Low	High	Total
Not at Home or Crack/Cocaine/Heroin	Avg. Total Cost (Adj)	$2,634	$1,626	$1,821
	Avg Service Months	2.67	2.97	2.91
	Avg Monthly Cost (Adj)	$966	$539	$621
	Individuals	888	3,702	4,590
At Home and No Crack/Cocaine/Heroin	Avg Total Cost (Adj)	$2,267	$1,138	$1,242
	Avg Service Months	3.04	3.08	3.08
	Avg Monthly Cost (Adj)	$779	$363	$402
	Individuals	1,152	11,271	12,423
Total	Avg Total Cost (Adj)	$2,427	$1,258	$1,398
	Avg Service Months	2.88	3.05	3.03
	Avg Monthly Cost (Adj)	$861	$407	$461
	Individuals	2,040	14,973	17,013

Living Condition/Substance	Level of Functioning		
	Low	High	Total
Not at Home or Crack/Cocaine/Heroin			
Avg Monthly Gross Value	$966	$539	$621
Individuals	888	3,702	4,590
At Home and No Crack/Cocaine/Heroin			
Avg Monthly Gross Value	$779	$363	$402
Individuals	1,152	11,271	12,423
Total			
Avg Monthly Gross Value	$861	$407	$461
Individuals	2,040	14,973	17,013

Appendix 4 contains a flowchart illustration of the logic used to risk adjust this group.

Chronically Addicted Women with Dependent Children or Pregnant (SWD)

There were 1,871 chronically addicted SWDs in the analysis of this group. Mercer's initial analysis used the FY 2001 data with the original algorithm that defined the SWD. Table 7 presents the average monthly gross service cost for each of the six risk-adjusted cells using the existing algorithm.

Table 7: Chronically Addicted Women with Dependent Children or Pregnant (SWD)—Existing Algorithm

Primary Substance/Age		Level of Functioning 2001		
		Low	High	Total
Cocaine/Crack/ Heroin—All Ages	Avg Monthly Gross Cost	$881	$736	$762
	Individuals	89	406	495
Other Drugs— 18 to 34 years	Avg Monthly Gross Cost	$620	$370	$397
	Individuals	95	774	869
Other Drugs— 35+ years	Avg Monthly Gross Cost	$815	$487	$531
	Individuals	68	439	507
Total	Avg Monthly Gross Cost	$765	$494	$530
	Individuals	252	1,619	1,871

	Level of Functioning 2001		
	Low	High	Total
Crack/Cocaine/Heroin	4.8%	22%	26%
Other/18 to 34	5.1%	41%	46%
Other/35+	3.6%	23%	27%
Total	13.5%	87%	100%

Appendix 4 contains a flowchart illustration of the logic used to risk adjust this group.

The average monthly gross service cost for this population was slightly higher ($530) than the CA group ($461). Because of their status of being pregnant or with dependent children, it is believed that the majority of the individuals should be eligible for Medicaid (i.e., TANF); therefore, their service utilization would be different from those substance users not eligible for Medicaid. After consultation with the Division, the decision was to keep the SWD as a separate risk-adjusted group and to apply alternative algorithms. Mercer applied the new algorithm (i.e., living condition, level of functioning, drug choice) used in the CA category into the regression model with the SWD group. Table 8 shows the average monthly gross service cost for each of the 4 risk-adjusted cells.

Table 8: Chronically Addicted Women with Dependent Children or Pregnant (SWD)—Alternative Algorithm

Living Condition/Substance		Level of Functioning		
		Low	High	Total
Not at Home or Crack/Cocaine/Heroin	Avg. Total Cost (Adj)	$2,785	$2,258	$2,360
	Avg Service Months	3.44	3.38	3.39
	Avg Monthly Cost (Adj)	$857	$857	$744
	Individuals	132	549	681
At Home and No Crack/Cocaine/Heroin	Avg Total Cost (Adj)	$2,355	$1,248	$1,360
	Avg Service Months	3.54	3.20	3.23
	Avg Monthly Cost (Adj)	$664	$379	$407
	Individuals	120	1,070	1,190
Total	Avg Total Cost (Adj)	$2,580	$1,591	$1,724
	Avg Service Months	3.49	3.26	3.29
	Avg Monthly Cost (Adj)	$765	$494	$530
	Individuals	252	1,619	1,871

Living Condition/Substance	Level of Functioning		
	Low	High	Total
Not at Home or Crack/Cocaine/Heroin			
Avg Monthly Gross Value	$857	$717	$744
Individuals	132	549	681
At Home and No Crack/Cocaine/Heroin			
Avg Monthly Gross Value	$664	$379	$407
Individuals	120	1,070	1,190
Total			
Avg Monthly Gross Value	$765	$494	$530
Individuals	252	1,619	1,871

Appendix 4 contains a flowchart illustrating the logic used in risk adjusting this group.

Individuals with Methadone Only (SMO)

There were 263 individuals classified as SMO within the chronic addiction category. Mercer evaluated the monthly gross service cost in the regressions using the existing algorithm that applied to the CA risk-adjusted group. The average monthly gross cost for this group ($263) was found to be much lower than that for the CA population ($461).

The lower service cost was expected due to the service modality of methadone maintenance. Because of the small number of individuals that fell into this agreement type and the below average gross service cost when compared to the CA category, it is recommended that this group not be included in the CA category. Risk adjustment is also not appropriate because of the small number of individuals in this group..

Individuals with Co-Occurring Disorder of Serious Mental Illness and Chronic Addiction (CM)

There were 2,580 individuals who met the criteria for inclusion in the CM group according to the definition used in this study. This represents about 5 percent of the total individuals in the study. Though the percentage appears to be lower than expected, it might be attributable to Mercer's strict definition of "serious mental illness" in which certain diagnoses were excluded (i.e., personality disorders, anxiety disorders).

Mercer examined the average monthly gross cost of this population and separated it into two groups. A "SMI Primary" group was introduced, consisting of individuals who had a serious mental disorder as a primary diagnosis and a substance abuse disorder as a secondary diagnosis (n=1,795). A "CA Primary" group was also introduced, consisting of individuals who had a primary substance abuse disorder followed by a serious mental illness as a secondary diagnosis (n=785).

The overall average monthly gross cost was $753 for the "SMI Primary" group and $532 for the "CA Primary" group, using the existing algorithms developed for the SMI and CA risk groups, respectively. It was hypothesized, as a result of consultation with the Division, that the below average service cost for either group might be attributable to the current reimbursement system that lacks financial incentive to provide care for this population. As a result, the service utilization as captured in FY 2001 might not reflect the needs of this population.

Mercer examined different risk variables in a regression model. For ease of administration, a simpler construct was developed to risk adjust this group. The final model includes the variables of living condition (at home vs. not at home) and diagnosis (psychotic versus not psychotic).

The home condition included individuals staying at home or in independent living (at home = 3 or 5 in the living arrangement field whereas not at home = 1, 2, or 4 in living arrangement field). Individuals who met the DSM-IV codes of 295.xx, 297.1, 297.3, 298.8 or 298.9 (schizophrenia, delusional disorder, shared psychotic disorder, brief psychotic disorder, and psychotic disorder NOS respectively) in either their primary or secondary diagnoses were considered to have a "psychotic condition." These variables yielded a total of four risk-adjusted cells and the average monthly gross cost is presented in Table 9.

Table 9: Individuals with Co-Occurring Disorder of Serious Mental Illness and Chronic Addiction (CM)

Diagnostic Group	Living Condition		
	Not at Home	At Home	Total
Psychotic			
Avg Monthly Gross Cost	$1,536	$775	$936
Individuals	230	859	1,089
Not Psychotic			
Avg Monthly Gross Cost	$723	$463	$495
Individuals	185	1,306	1,491
Total			
Avg Monthly Gross Cost	$1,173	$587	$681
Individuals	415	2,165	2,580

Appendix 5 contains a flowchart illustrating the logic used in risk adjusting this group.

Individuals who are Deaf or Hard of Hearing and also Seriously Mentally Ill (DMI) or Chronically Addicted (DCA)

There were 87 individuals with a serious mental illness who were included in the analysis of individuals who were deaf or hearing-impaired. The average gross cost was about $6,500 per case using FY 2001 data. The higher cost was expected due to the additional treatment required for this population.

There were only 5 deaf and/or hard of hearing individuals with chronic addictions. The average gross cost was about $424 per case using FY 2001 data.

Since the Division treats these groups as a "carve out" from its normal reimbursement method, with a negotiated rate and limited providers, the Division requested that these groups be kept separate. No risk adjustment model was developed for these groups due to the small number of individuals.

Chronic Gamblers (GAM)

There were only 117 individuals who met the Division's guideline of having the diagnosis of pathological gambling (i.e., 312.31 in DSM-IV) and continuing gambling behavior despite repetitive harmful consequences. The average gross cost was about $23,000 per case using FY 2001 data. Because of the small number of individuals in this group, it was not statistically appropriate to establish risk-adjusted groupings on the basis of level of functioning or other risk variables.

Development of Case Rates

The Division requested the calculation of case rates for the following risk-adjusted groups and populations:

- Adults with serious mental illness (SMI);
- Individuals with chronic addictions (CA);
- Women with a chronic addiction who are pregnant or with dependent children (SWD);
- Individuals with serious mental illness moved from state hospitals under the state-operated facility agreement type (SOF);
- Individuals with a compulsive gambling addiction (GAM);
- Individuals enrolled by providers under referrals from the Department of Workforce Development (WD);
- Individuals who are deaf and also seriously mentally ill (DMI) or chronically addicted (DCA);
- Individuals with co-occurring disorders of serious mental illness and chronic addictions (CM);
- Methadone only (SMO); and
- Special arrangement (SPL).

The development of the risk-adjusted groups, and the criteria used to determine these groups, is outlined in the previous section. In this section, we describe how the case rates are developed for each risk-adjusted group, taking the Division's programmatic goals, data concerns and specific assumptions into account. We have been able to calculate baseline case rates for the re-defined groups using the FY 2001 data. This baseline then is used to develop FY 2003 case rates. This section is summarized into the following areas:

- Data Analysis;
- Case Rates;
- Provider Impact Analysis; and
- Reinsurance.

Data Analysis

The data analysis involved several steps. The first step was to gather the data that had been cleaned and summarized as explained in the previous section. The second step was to perform additional data analysis specific to the case rate development. We were able to compare the 1998 data from our previous study with the data that had been collected in 2001. We looked at the differences the data were showing between the two time periods and made adjustments to the data through discussions with the Division. We then summarized our results in the tables displayed in Appendices 6, 7, and 8.

Revenue Table Analysis

The revenue tables are representative of annual dollars paid to providers to deliver services from sources other than the Division. These other revenue sources include Medicaid MRO, Medicaid Other, Medicare, Federal, State, County/Local, Other Third Party Liability (TPL), and Other. Other TPL is a new category in 2001 when compared to the revenue sources the providers had in the previous analysis that Mercer performed. In the previous analysis Mercer performed, Other TPL was included in Other.

As we ran comparisons of the revenue sources, continued data checks, and held discussions with the Division, we found that Medicaid MRO represented both the federal and state portions of payments made to providers. Since only the federal portion of these payments was to be included in the case rates, we needed to alter the original data. The Division supplied the Federal Funding Percentage (FFP), 62.04 percent, which was used to adjust the Medicaid MRO payments to only reflect the federal portion. We then combined total annual revenue from all sources listed above and compared that to the annual gross cost calculated by Mercer. The annual gross cost represents the total cost of services for each individual. Case rates were calculated on the basis of annual net cost equals annual gross cost minus revenues received from other sources.

Data Comparisons of 1998 and 2001

Mercer compared the final, cleaned set of adult data from the previous study in 1998 to the current 2001 data to see how the population and costs might have changed over time. In comparing the time periods, the number of individuals enrolled almost doubled, the annual gross cost of mental health services increased approximately 37 percent and the annual net cost decreased approximately 13 percent. Given the large increases in the number of individuals and annual gross cost, the decrease in annual net cost stood out as an issue that needed to be analyzed further.

Negative Net Cost Analysis

In looking at the net costs calculated for each individual in our analysis, we noticed a large percentage, approximately 19 percent, had net costs that were negative or zero. We tried to determine what was driving the negatives by looking at several potential drivers within the data.

Gross Cost Differences

The first potential driver we looked at was the difference between the gross cost provided by the Division and the gross cost calculated by Mercer. In the Gross Cost Determination section described previously, Mercer developed a fee schedule to be used by all providers. This fee schedule was used to calculate the gross cost for each individual, and this resulting gross cost was used throughout the analysis. When calculating the total net cost per individual with two different gross costs as a base, one using the Division's gross cost and the other using Mercer's gross cost, we saw a similar number of negatives in each scenario. This did not lead to a clear explanation for the negative net costs.

Providers with Negative Net Costs

The second potential driver we looked at was the providers associated with each individual that had a negative net cost. We were trying to determine if a small subset of the providers were causing the negatives for all individuals. In looking at the data further, we found that this was not the case as 84% of the providers had individuals with negative net costs.

Funding Indicator

The third potential driver we looked at was the funding indicator. The funding indicator is a field in the data used to specify whether or not a provider had requested reimbursement from the Division for services provided to a particular individual. Each provider has an allocation of funds they will receive from the Division each year. If a provider knew they had used all their available funds from the Division, they may not have requested payments for a individual because they would have assumed the Division would not be able to reimburse them. When we analyzed the data, we found that in half of the cases the providers had requested reimbursement from the Division and in the other half they had not requested reimbursement from the Division. This did not lead to a clear indicator of what was driving the negative net costs.

Negative Case Rates

When we began to develop case rates, the source behind the negative net costs and the issue of whether or not to include these individuals in the analysis were still outstanding. Through ongoing discussions with the Division, we chose to calculate case rates with the negative net cost individuals included and as a result, we found that some of the populations, such as DCA, DMI, and SMO, all had negative case rates. In addition, SOF stood out as having a very low case rate compared to what was expected. Mercer compared the case rates for all individuals in SOF, including those with negative net costs, to the case rates for individuals in SOF without negative net costs. The case rate increase considerably when we took out the individuals that had negative net costs.

It was decided in consultation with the Division, to examine the detail behind the SOF individuals with negative net costs. We found that revenue in Other TPL for provider number 405, Hamilton Center, looked very high compared to the revenue from the other providers. Furthermore, the exact same payment was made for several individuals. The Division determined there was a problem with Hamilton Center's reporting system and requested all Hamilton Center Other TPL revenue be removed from the analysis.

After removing Hamilton Center Other TPL revenue from the analysis, we saw dramatic changes to the SOF population and slight changes to the SMI and CM populations. The Division asked that we keep the Hamilton Other TPL revenue out of the analysis but include all other individuals with negative net costs. As a result, case rates may be understated for some of the groups. The number of individuals with negative and zero annual net cost are included with each table.

Additional factors contributing to the negative net costs may be a result of significant under-reporting of the gross cost and total encounters by the providers. As mentioned previously, if a provider does not expect reimbursement for an individual, they may not report the encounter or the costs associated with that encounter. The revenue data may also contain errors in the way it is gathered and reported. The providers should be reviewing their data systems to ensure revenues are being reported correctly.

Case Rates

Baseline Case Rates Developed from 2001 Data

Risk-adjusted groups were developed for the following populations:

- Adults with Serious Mental Illness (SMI);
- Individuals with Chronic Addiction (CA);
- Chronically Addicted Women with Dependent Children or Pregnant (SWD); and
- Co-Occurring Disorder of Serious Mental Illness and Chronic Addiction (CM).

Groups based on average cost were developed for the following populations:

- Deaf or Hard of Hearing who are Chronically Addicted (DCA);
- Deaf or Hard of Hearing Adults who are Seriously Mentally Ill (DMI);
- Chronic Gamblers (GAM);
- Individuals with Methadone Only (SMO); and
- State Operated Facility (SOF).

Groups could not be developed for WD and SPL since there was a lack of individuals and data to develop credible recommendations.

The case rates developed for each risk-adjusted group based on the 2001 data are shown in Appendix 6: Tables 10 through 14. Each table displays FY 2001 case rates using annual gross cost, FY 2001 case rates using annual net cost, and the percentage decrease between the case rates using annual gross and net cost. The Division requested these views to see how the case rates changed from being calculated with the gross cost to being calculated with the net cost. The gross cost represents the entire cost of services for each individual in a particular group, whereas the net cost represents the portion of the cost that the Division is responsible for. In calculating the net cost, we remove the revenue providers receive from sources other than the Division to determine the outstanding reimbursement providers require from the Division to deliver the appropriate services to individuals in specific groups. These tables include the number of individuals by level of functioning/living condition, as well as the number of individuals with negative and zero net costs for the entire risk-adjusted population. The FY 2001 case rates using net cost are representative of the amount the Division should have reimbursed each provider for individuals in the respective risk groups if the groups had been defined this way.

Table 10: Adults with Serious Mental Illness

The three diagnostic groupings for this population are Psychotic, Bipolar & Personality, and Other. The levels of functioning are Low, Moderate, and High. The combination of level of functioning and diagnostic group yields nine risk-adjusted groups. Table 10 illustrates the cost of adults with Serious Mental Illness at various levels of functioning and diagnoses. For these nine groups, we feel there is an adequate number of individuals in each group to support the case rates that have been calculated.

Table 11: Individuals with Chronic Addiction

The two living condition/substance groupings are Not at Home and/or Crack/Cocaine/Heroine and At Home and Not Crack/Cocaine/Heroine. The levels of functioning are Low and High. The combination of living condition/substance groupings and levels of functioning yields four risk-adjusted groups.

Table 12: Chronically Addicted Women with Dependent Children or Pregnant

The two living condition/substance groupings are Not at Home and/or Crack/Cocaine/Heroine and At Home and Not Crack/Cocaine/Heroine. The levels of functioning are Low and High. The combination of living condition/substance and levels of functioning yields four risk-adjusted groups. Please note that the number of individuals in these groupings is very small and an increase in these numbers could cause dramatic changes to the rates currently developed.

Table 13: Individuals with Co-occurring Disorders of Serious Mental Illness and Chronic Addictions

The two diagnostic groupings are Psychotic and Not Psychotic and the living conditions are Not at Home and At Home. The combination of diagnostic grouping and living conditions yields four risk-adjusted groups. Please note that the number of individuals in these groupings is very small and an increase in these numbers could cause dramatic changes to the rates currently developed.

Table 14: Remaining Risk Groups

This table includes average gross and net costs for the DCA, DMI, GAM, SMO and SOF populations. The net costs for DCA, DMI, and SMO were negative based on the 2001 data. The Division contracts separately with the providers for these groups and will use this information in negotiating reimbursement levels.

Projected Case Rates developed for 2003

In developing case rates for each risk-adjusted group for FY 2003, we assumed that revenue from other sources, such as Medicaid MRO, would remain the same percentage as in FY 2001. As a result of consultation with the Division, it was assumed that benefits in the other revenue source programs and benefits in the Division's programs would not change on a percentage basis. In addition, rates of participation are expected to remain similar to those in FY 2001. Mercer has assumed a trend for dollars from FY 2001 to FY 2003 of 4.5 percent per year, or approximately 9.2 percent for the entire period. We did not include an administrative expense, per the Division's request.

Because provider reimbursement is based on average case rates rather than an individual's actual service utilization, the following points should be noted. Treatment patterns can vary widely among individuals within a given functioning level. To the extent a provider manages care for a representative cross section of the population, prospective provider reimbursement using average case rates will tend to meet targeted levels. If a provider manages care for only a few individuals, actual results may vary.

Another point to be aware of is potential migration of individuals to higher cost groups than appropriate. The Division should monitor the penetration rates of each risk-adjusted group to ensure individuals are not being placed in higher cost cells, when these placements are not clinically necessary.

In regard to the WD and SPL populations, case rates were not developed due to a lack of individuals and data. For the DCA, DMI, and SMO populations, the Division will contract with providers on an individual basis. The rates developed by Mercer were negative for these populations, so the Division will determine whether or not the providers need reimbursement from them or if they are receiving sufficient reimbursement from other revenue sources.

The case rates in Appendix 7, Tables 15 through 19, are based on patterns of service utilization in FY 2001 and trended forward to FY 2003. These rates do not incorporate policy decisions that the Division may want to make. The Division may consider adjusting these rates to better reflect policy.

Table 15–19: Projected FY 2003 Case Rates and Budget for Each Risk-Adjusted Group

The Division asked that we include a total budget for FY 2003 based on the new case rates. We have calculated the projected budget requirements by risk group and level of functioning, as well as in total for all populations. We calculated the total budget with and without Table 19, as Table 19 contains the risk groups that have negative case rates and the contracts for these groups are negotiated with each individual provider by the Division.

Provider Impact Analysis

Mercer performed an analysis to determine the impact the new risk-adjusted groups and their subsequent case rates would have on provider reimbursement. Since the risk-adjusted groups have been re-configured from the previous analysis, we wanted to see how that would affect provider reimbursement levels in total. We used the risk-adjusted groups created in our previous study as a base for the 1998 provider reimbursement levels and the new risk-adjusted groups as a base for the 2001 and 2003 provider reimbursement levels. For the 1998 case rates we used the rates listed in the "FY2001 Community Services Data System Instructions, REVISED, Monday, February 26, 2001" provided by the Division. A case rate was not listed in the above source for SOF so, based on consultation with the Division, Mercer assumed a rate of $35,000 per individual in 1998. We did not include SPL or WD individuals in this analysis. DCA, DMI, and SMO were included even though the case rates for these groups are negative in 2001 and 2003. All reimbursement levels were calculated based on 2001 individuals.

Mercer created two tables that display the total reimbursement each provider received from the Division for 1998 and 2001 and projected 2003 reimbursement based on the above assumptions. In Appendix 8 there are two tables, Tables 20 and 21, with the results of the reimbursement analysis. The tables display the percent change in reimbursement levels for each provider from 1998 to 2001 and 1998 to 2003. Table 20 shows total reimbursement from the Division by provider while Table 21 shows total reimbursement from the Division by provider and population.

Reinsurance

Per the Division's request, Mercer also reviewed the viability of the Division offering reinsurance to providers. There are a number of factors to consider in making this decision:

- Capitation rate structure;
- Risk adjusted rates;
- Acceptable risk of state/contractors;
- Maturity of the program;
- Voluntary versus mandatory enrollment;
- Type of services covered;
- Number of plans; and
- Number of participating members.

One of the key factors to keep in mind is that offering reinsurance will expose the carrier to greater risk, or potentially higher costs, in a given year. The carrier receives extra funds (premium paid by providers) to supply this reinsurance; however, due to the variability in actual costs versus estimated costs, the reinsurer can experience additional costs (losses) above the premiums they receive. For this reason, it is not recommended that the Division supply a reinsurance policy for providers.

Building Consensus through Stakeholder Involvement and the Advisory Group

There were three methods used to develop consensus. They were conference calls with the Division, meetings with the Division, Advisory Group and general public, and project bulletins.

Conference Calls

During the project, numerous conference calls were held with the Division. These calls primarily focused on the identification and clarification of data issues, the selection of risk modeling options, and preparation for public meetings. The approval of the Division was obtained for each of the rate groups that was developed.

Meetings with the Division, Advisory Group, and General Public

Mercer held a series of meetings with the Division, Advisory Group, and general public. These meetings and their schedule are contained in Appendix 9.

Project Bulletin

Mercer issued two project bulletins during the project. They are included in Appendix 10.

Appendix 1

Chronically Addicted (SA)

Definition

A. The individual has a Substance-Related Disorder in DSM-III (DSM-IV after 1 January, 1995).

B. The individual experiences significant functional impairments in two (2) of the following areas:
   (i) Activities of daily living.
   (ii) Interpersonal functioning.
   (iii) Ability to live without recurrent use of chemicals.
   (iv) Psychological functioning.

C. The duration of the addiction has been in excess of twelve (12) months. However, individuals who have experienced amnestic episodes (blackouts), or have experienced convulsions or other serious medical consequences of withdrawal from a chemical of abuse, or who display significant dangerousness as a result of chemical use, do not have to meet the durational requirement.

Chronically Addicted Woman with Dependent Children or Pregnant (SWD)

Definition

A. The individual shall meet the definition of Chronically Addicted (SA) (see page 26), and

B. Have dependent children receiving child care, or be pregnant at the date of enrollment, or

C. Women who are attempting to regain custody of their children.

Compulsive Gambling Addiction (GAM)

Definition

A. An individual who meets criteria for Axis-I diagnosis of pathological gambling as set out in the SAM-IV, Diagnosis 312.31, Pathological Gambling, and

B. The individual continues gambling behavior despite repetitive harmful consequences.

Appendix 1 (Continued)

Methadone Only (SMO)

Definition

A. A person who meets the diagnostic criteria of being Chronically Addicted (SA) (see page 26), and
B. Is determined to need methadone maintenance.

Workforce Development

Definition

A. An individual meets the definition for Chronically Addicted (SA) (see page 26), and
B. The individual meets the eligibility requirements of Welfare-To-Work (WtW), and
C. The individual is referred to the Managed Care Provider by the Department of Workforce Development.

Deaf Chronic Addiction (Hard Of Hearing) (DCA)

Definition

A. A person who meets the diagnostic criteria of being Chronically Addicted (SA) (see page 26), and
B. Meets the definition of Deaf/Hearing Impaired.

Deaf Seriously Mentally Ill (Adults) (Hard Of Hearing) (DMI)

Definition

A. A person who meets the diagnostic criteria of being Seriously Mentally Ill (SMI), and
B. Meets the definition of Deaf/Hearing Impaired.

Seriously Mentally Ill Adult (SMI)

Definition

A. The individual has a mental illness diagnosis under the Diagnostic and Statistical Manual of Mental Disorders, 3rd edition, revised (after 1 January, 1995, DSM IV), published by the American Psychiatric Association.
B. The individual experiences significant functional impairment in two (2) of the following areas:
   (i) Activities of daily living.
   (ii) Interpersonal functioning.
   (iii) Concentration, persistence, and pace.
   (iv)Adaption to change.
C. The duration of the mental illness has been or is expected to be, in excess of twelve (12) months. However, adults who have experienced a situational trauma do not have to meet the durational requirement of this clause.

Deaf Gambling (Hard Of Hearing) (DGM)

Definition

A. A person who meets the diagnostic criteria of Compulsive Gambling Addiction (GAM) (see page 27), and
B. meets the definition of Deaf/Hearing Impaired (see page 27).

State Operated Facility (SOF)

Definition

A. Client is pre-approved by the Division of Mental Health as eligible as an SOF client—
   (a) Client has been in a State Operated Facility for three (3) years or longer, and
   (b) The Managed Care Provider has placed client in the community.

Appendix 2

Procedure Code	Service Name	Unit Definition	m Fee Unit Cost
124	PSYCHIATRIC ROOM	DAY	$581.00
126	DETOX	DAY	$290.49
250	PHARMACEUTICALS [$1]	$1	$1.00
300	LAB	SESSION	$38.31
320	RADIOLOGY	SESSION	$152.75
36415	ROUTINE VENIPUNCTURE	SESSION	$3.00
762	INTENSIVE OBSERVATION	DAY	$465.53
765	23 HOUR STAY	23 HOURS	$75.00
780	CONTRACTED IP SERVICE	DAY	$402.32
80050	GENERAL HEALTH SCREEN PANEL	SESSION	$50.04
80100	DRUG SCREEN; MULTIPLE	SESSION	$20.10
80101	DRUG SCREEN; SINGLE	SESSION	$19.03
81002	URINALYSIS WITHOUT MICROSCOPY	SESSION	$3.54
81005	URINALYSIS; CHEMICAL, QUA	SESSION	$3.00
81025	URINE PREGNANCY TEST	SESSION	$8.74
82075	ASSAY OF BREATH ETHANOL	SESSION	$16.66
82800	GASES, BLOOD; PH ONLY	SESSION	$11.71
85021	BLOOD COUNT; HEMOGRAM, AU	SESSION	$7.72
85024	HEMOGRAM AND PLATELET COUNT	SESSION	$11.70
85027	BLOOD COUNT; HEMOGRAM, AUTOMATED	SESSION	$8.95
85048	BLOOD COUNT; WHITE BLOOD	SESSION	$3.52
86580	SKIN TEST; TUBERCULOSIS,	SESSION	$6.51
90782	THERAPEUTIC OR DIAGNOSTIC INJECTION	SESSION	$2.84
90801	PSYCHIATRIC DIAGNOSTIC INTERVIEW	SESSION	$80.90
90802	INTERACTIVE PSYCH DX INTERVIEW	SESSION	$94.97
90804	PSYTX, OFFICE, 20-30 MIN	20-30 MIN	$40.92
90805	PSYTX, OFF, 20-30 MIN W/E	20-30 MIN	$51.02
90806	PSYTX, OFF, 45-50 MIN	45-50 MIN	$63.67
90807	PSYTX, OFF, 45-50 MIN W/E	45-50 MIN	$71.24
90808	PSYTX, OFFICE, 75-80 MIN	75-80 MIN	$106.79
90809	PSYTX, OFF, 75-80, W/E&M	75-80 MIN	$117.72
90810	INTERACTIVE PSYTX, OFF, 20-30 MIN	20-30 MIN	$49.97
90811	INTAC PSYTX, 20-30, W/E&M	20-30 MIN	$60.90
90812	INTAC PSYTX, OFF, 45-50 M	45-50 MIN	$68.76
90813	INTAC PSYTX, 45-50 MIN W/	45-50 MIN	$76.89
90814	INTAC PSYTX, OFF, 75-80 M	75-80 MIN	$99.88
90815	INTAC PSYTX, 75-80 W/E&M	75-80 MIN	$111.65
90816	PSYTX, HOSP, 20-30 MIN	20-30 MIN	$44.57
90817	PSYTX, HOSP, 20-30 MIN W/	20-30 MIN	$56.06
90818	PSYTX, HOSP, 45-50 MIN	45-50 MIN	$69.56
90819	PSYTX, HOSP, 45-50 MIN W/	45-50 MIN	$77.97
90821	PSYTX, HOSP, 75-80 MIN	75-80 MIN	$116.04
90822	PSYTX, HOSP, 75-80 MIN W/	75-80 MIN	$128.37
90826	INTAC PSYTX, HOSP, 45-50	45-50 MIN	$74.92
90828	INTAC PSYTX, HOSP, 75-80	75-80 MIN	$109.69
90846	FAMILY MEDICAL PSYCHOTHER	SESSION	$69.08
90847	FAMILY MED. PSY. (CONJOIN	SESSION	$78.42
90849	MULTI-FAMILY GROUP MEDICA	SESSION	$89.57
90853	GROUP MEDICAL PSYCHOTHERA	SESSION	$19.23
90857	INTERACTIE GROUP MEDICAL	SESSION	$16.24

Appendix 2 (Continued)

Procedure Code	Service Name	Unit Definition	m Fee Unit Cost
90862	PHARMACOLOGIC MANAG., INC	SESSION	$37.23
90870	ELECTROCONVULSIVE THERAPY	SESSION	$68.95
90871	MULTIPLE SEIZURES	SESSION	$100.77
90882	ENVIRONMENTAL INTERVENTIO	SESSION	$53.21
90885	PSY EVALUATION OF RECORDS	SESSION	$96.21
90887	INTERP OR EXPLANATION OF	SESSION	$51.19
90889	PREPARATION OF REPORT OF	SESSION	$93.45
90899	UNLISTED PSYCHIATRIC SERV	SESSION	$24.61
90901	BIOFEEDBACK TRAINING, ANY MODALITY	SESSION	$19.30
93005	ELECTROCARDIOGRAM, W/O INTERPRETATION OR REPORT	SESSION	$11.58
93010	ELECTROCARDIOGRAM, INTERPRETATION & REPORT	SESSION	$9.06
95816	ELECTROENCEPHALOGRAM (EEG	SESSION	$72.61
96100	PSYCHOLOGICAL TESTING	SESSION	$46.45
96111	DEVELOPMENTAL TEST, EXTENDED	SESSION	$46.45
96115	NEUROBEHAVIOR STATUS EXAM	SESSION	$46.45
96117	NEUROPSYCH TEST BATTERY	SESSION	$46.45
97003	OCCUPATIONAL THERAPY EVAL	SESSION	$44.33
97535	SELF CARE MNGMENT TRAINING (15 MIN)	15 MIN	$13.95
97537	COMMUNITY/WORK REINTEGRATION (15 MIN)	15 MIN	$13.95
97770	COGNITIVE SKILLS DEVELOPMENT (15 MIN)	15 MIN	$20.03
99000	HANDLING OF SPECIMEN FOR TRANSFER	SESSION	$2.97
99075	MEDICAL TESTIMONY	SESSION	$223.57
99078	PHYSICIAN EDUCATIONAL SERVICES	SESSION	$9.71
99080	SPECIAL REPORTS/FORMS	SESSION	$21.76
99201	OFFICE VISIT, MINOR (10 MIN)	10 MIN	$20.82
99202	OFFICE VISIT, MODERATE (20 MIN)	20 MIN	$33.96
99203	OFFICE VISIT, MODERATE (30 MIN)	30 MIN	$46.85
99204	OFFICE VISIIT, HIGH SEVER (45 MIN)	45 MIN	$70.14
99205	OFFICE VISIT MOD.TO HIGH (60 MIN)	60 MIN	$88.36
99211	OFFICE VISIT MINIMAL (5 MIN)	5 MIN	$9.98
99213	OFFICE VISIT LOW (15 MIN)	15 MIN	$25.98
99214	OFFICE OR OTHER OUTPATIENT VISIT (25 MIN)	25 MIN	$40.43
99215	OFFICE OR OTHER OUTPATIENT VISIT (40 MIN)	40 MIN	$63.87
99217	OBSERVATION CARE DISCHARGE	VISIT	$45.15
99218	INITIAL OBSERVATION CARE, LOW SEVERITY	VISIT	$49.31
99219	INITIAL OBSERVATION CARE, MODERATE SEVERITY	VISIT	$78.40
99220	INITIAL OBSERVATION CARE, HIGH SEVERITY	VISIT	$99.52
99221	INITIAL HOSPITAL CARE (30 MIN)	30 MIN	$48.49
99222	INITIAL HOSPITAL CARE (50 MIN)	50 MIN	$80.67
99223	INITIAL HOSPITAL CARE (70 MIN)	70 MIN	$103.60
99231	SUBSEQUENT HOSPITAL CARE (15 MIN)	15 VISIT	$24.86
99232	SUBSEQUENT HOSPITAL CARE (25 MIN)	25 VISIT	$37.20
99233	SUBSEQUENT HOSPITAL CARE (35 MIN)	35 VISIT	$51.86
99234	OBSERV/HOSP SAME DATE, LOW SEVERITY	SESSION	$90.27
99235	OBSERV/HOSP SAME DATE, MODERATE SEVERITY	SESSION	$124.40
99236	OBSERV/HOSP SAME DATE, HIGH SEVERITY	SESSION	$150.57
99238	HOSPITAL DISCHARGE DAY, UP TO 30 MIN	Up to 30 MIN	$44.05
99239	HOSPITAL DISCHARGE DAY, OVER 30 MIN	Over 30 MIN	$62.86
99241	OFFICE CONSULTATION, MINOR (15 min)	15 MIN	$33.43
99243	OFFICE CONSULT, MODERATE (30 MIN)	30 MIN	$68.63
99244	OFFICE CONSULT, HIGH (60 MIN)	60 MIN	$96.82

Appendix 2 (Continued)

Procedure Code	Service Name	Unit Definition	m Fee Unit Cost
99251	INITIAL INPATIENT CONSULTATION, 20 MIN	20 MIN	$34.21
99252	INITIAL INPATIENT CONSULTATION, 40 MIN	40 MIN	$53.23
99253	INITIAL INPATIENT CONSULTATION, 55 MIN	55 MIN	$70.63
99254	INITIAL INPATIENT CONSULTATION, 80 MIN	80 MIN	$97.44
99255	INITIAL INPATIENT CONSULTATION, 110 MIN	110 MIN	$132.11
99261	FOLLOW UP INPATIENT CONSULTATION, 10 MIN	10 MIN	$19.08
99262	FOLLOW UP INPATIENT CONSULTATION, 20 MIN	20 MIN	$33.79
99263	FOLLOW UP INPATIENT CONSULTATION, 30 MIN	30 MIN	$51.00
99273	CONFIRMATORY CONSULTATION, MODERATE SEVERITY	SESSION	$61.94
99274	CONFIRMATORY CONSULTATION, MODERATE-HIGH SEVERITY	SESSION	$82.54
99281	EMERGENCY DEPARTMENT VISIT, MINOR SEVERITY	SESSION	$15.25
99282	EMERGENCY DEPARTMENT VISIT, LOW-MODERATE SEVERITY	SESSION	$23.74
99283	EMERGENCY DEPARTMENT VISIT, MODERATE SEVERITY	SESSION	$43.82
99284	EMERGENCY DEPARTMENT VISIT, HIGH SEVERITY	SESSION	$66.93
99301	EVALUATION AND MANAGEMENT, LEVEL 1	SESSION	$42.63
99302	EVALUATION AND MANAGEMENT, LEVEL 2	SESSION	$61.18
99303	EVALUATION AND MANAGEMENT, LEVEL 3	SESSION	$90.94
99311	NURSING FACILITY CARE, SUBSEQUENT; LEVEL 1	SESSION	$24.67
99312	NURSING FACILITY CARE, SUBSEQUENT; LEVEL 2	SESSION	$36.29
99313	NURSING FACILITY CARE, SUBSEQUENT; LEVEL 3	SESSION	$46.41
99331	REST HOME VISIT, EST PATIENT, LEVEL 1	SESSION	$24.65
99332	REST HOME VISIT, EST PATIENT, LEVEL 2	SESSION	$32.47
99333	REST HOME VISIT, EST PATIENT, LEVEL 3	SESSION	$40.01
99361	MEDICAL CONFERENCE BY PHYSICIAN W/0 PATIENT, 30 MIN	30 MIN	$45.00
99362	MEDICAL CONFERENCE BY PHYSICIAN W/0 PATIENT, 60 MIN	60 MIN	$100.00
99371	TELEPHONE CALL BY A PHYSICIAN; COORD OF CARE	SESSION	$44.11
99372	TELEPHONE CALL BY PHYSICIAN; INTERMEDIATE	SESSION	$41.86
99373	TELEPHONE CALL BY PHYSICIAN, COMPLEX OR LENGTHY	SESSION	$26.50
99455	WORK RELATED EXAM	SESSION	$59.05
AFA	AFA	DAY	$18.38
AFC	AFC	DAY	$54.46
G0001	ROUTINE VENIPUNCTURE	SESSION	$3.00
G0176	OPPS/PHP; ACTIVITY THERAPY		$72.92
G0177	OPPS/PHP; TRAIN & EDUC SE		$46.01
H0001	ALCOHOL AND/OR DRUG ASSESSMENT	SESSION	$119.55
H0002	ALCOHOL AND/OR DRUG SCREENING, ELIGIBILITY SCREENING	SESSION	$60.00
H0003	ALCOHOL AND/OR DRUG SCREENING, LAB ANALYSIS	SESSION	$32.34
H0004	ALCOHOL AND/OR DRUG SERVICES, INDIVIDUAL COUNSELING	SESSION	$52.58
H0005	ALCOHOL AND/OR DRUG SERVICES, GROUP COUNSELING	SESSION	$34.24
H0006	ALCOHOL AND/OR DRUG SERVICES, CASE MANAGEMENT	SESSION	$41.43
H0007	ALCOHOL AND/OR DRUG SERVICES, OP CRISIS INTERVENTION	SESSION	$42.50
H0010	ALCOHOL AND/OR DRUG SERVICES, SUB-ACUTE DETOX	SESSION	$72.06
H0015	ALCOHOL AND/OR DRUG SERVICES, INTENSIVE OP	SESSION	$49.64
H0016	ALCOHOL AND/OR DRUG SERVICES, MEDICAL/SOMATIC	SESSION	$44.42
H0018	ALCOHOL AND/OR DRUG SERVICES, SHORT-TERM RESIDENTIAL	SESSION	$650.00
H0019	ALCOHOL AND/OR DRUG SERVICES, LONG-TERM RESIDENTIAL	SESSION	$200.00
H0020	ALCOHOL AND/OR DRUG SERVICES, METHADONE ADMINISTRATION	SESSION	$10.00
H0025	ALCOHOL AND/OR DRUG PREVENTION	SESSION	$60.00
H0029	ALCOHOL AND/OR DRUG PREVENTION ALTERNATIVE SVCS	SESSION	$60.00
H0100	CLUB HOUSE	DAY	$228.97
H0110	RESIDENTIAL DETOX	DAY	$191.14

Appendix 2 (Continued)

Procedure Code	Service Name	Unit Definition	m Fee Unit Cost
H0111	PSYCHO-EDUCATIONAL GROUP THERAPY	SESSION	$14.81
H0120	LIVING ALLOWANCE (1 UNIT = $1.00)	UNIT	$1.00
H0126	PSYCHOPARENTING SCREEN	SESSION	$500.00
H0130	RESIDENTIAL TREATMENT	DAY	$183.77
H0140	SUB-ACUTE	DAY	$137.84
H0150	INTENSIVE SUPERVISED GROUP LIVING	DAY	$97.72
H0160	REGULAR SUPERVISED GROUP LIVING	DAY	$71.07
H0165	CHILDRENS RESIDENTIAL FACILITY	DAY	$124.19
H0167	FOSTER HOME CARE	DAY	$37.15
H0170	TRANSITIONAL RESIDENTIAL SERVICE	DAY	$28.38
H0180	HOSPITAL DETOX	DAY	$768.56
H0190	HOSPITAL TREATMENT	DAY	$510.91
H0195	INTENSIVE OUTPATIENT THERAPY	DAY	$78.27
H0200	INTERVENTION (15 MIN)	15 MIN	$21.40
H0210	EXPERIENTIAL THERAPY GROUP (15 MIN)	15 MIN	$6.41
H0215	EXPERIENTIAL THERAPY INDIVIDUAL (15 MIN)	15 MIN	$21.40
H0230	OUTPATIENT DETOX	SESSION	$55.59
H0235	RESPITE CARE (1 UNIT = 24 HOURS)	DAY	$9.87
H0240	DAY CARE, 1 UNIT= $1	Unit	$1.00
H0243	BABYSITTING, 1 UNIT= $1	Unit	$1.00
H0250	FINANCIAL COUNSELING	SESSION	$11.54
H0360	CASE MANAGEMENT & TRANSPORTATION (1 TRIP)	SESSION	$31.65
H0370	ADL + TRANSPORTATION (1 TRIP)	SESSION	$10.00
H3040	NON-MRO OP DIAGNOSTIC PREHOSPITAL ASSESSMENT (15 MIN)	15 MIN	$24.83
H3041	NON-MRO OP DIAGNOSTIC PREHOSPITAL ASSESSMENT (15 MIN)	15 MIN	$24.83
H3042	NON-MRO INDIVIDUAL COUNSELING (15 MIN)	15 MIN	$21.40
H3043	NON-MRO CONJOINT PSYCHOTHERAPY (15 MIN)	15 MIN	$19.61
H3044	NON-MRO FAMILY COUNSELING (15 MIN)	15 MIN	$17.27
H3045	NON-MRO GROUP (15 MIN)	15 MIN	$6.41
H3046	NON-MRO CRISIS INTERVENTION (15 MIN)	15 MIN	$33.11
H3047	NON-MRO MEDICATION/SOMATIC (15 MIN)	15 MIN	$18.62
H3048	NON-MRO ADL INDIVIDUAL (15 MIN)	15 MIN	$21.40
H3049	NON-MRO PARTIAL HOSPITAL (15 MIN)	15 MIN	$8.55
H3050	NON-MRO CASE MANAGEMENT (15 MIN)	15 MIN	$26.14
H3052	EDUCATION/TRAINING	SESSION	$75.00
H4010	MEDICATION/SOMATIC TREATMENT	EACH DISPENSING	$18.62
H9082	NON-MRO ADL GROUP	HOUR	$8.55
J0515	INJECTION, BENZTROPINE	SESSION	$7.01
J1630	INJECTION, HALOPERIDOL, UP TO 5 MG	SESSION	$11.45
J1631	INJECTION, HALOPERIDOL PER 50 MG	SESSION	$38.97
J2680	INJECTION, FLUPHENAZINE	SESSION	$31.04
M0064	BRIEF OFFICE VISIT FOR MONITORING DRUGS	SESSION	$15.74
SE	SUPPORTED EMPLOYMENT (15 MIN)	15 MIN	$26.14
SEVR	VR SUPPORTED EMPLOYMENT (15 MIN)	15 MIN	$26.14
SILP	SEMI-INDEPENDENT LIVING PROGRAM	DAY	$53.18
W9082	GROUP TRAINING IN ADL (15 MIN)	15 MIN	$8.55
X3029	COMMERCIAL AMBULATORY SERVICE	SESSION	$5.00
X3040	OUTPATIENT DIAGNOSTIC ASSESSMENT (15 MIN)	15 MIN	$24.83
X3041	OP PREHOSPITAL SCREENING (15 MIN)	15 MIN	$24.83
X3042	INDIVIDUAL COUNSELING (15 MIN)	15 MIN	$21.40

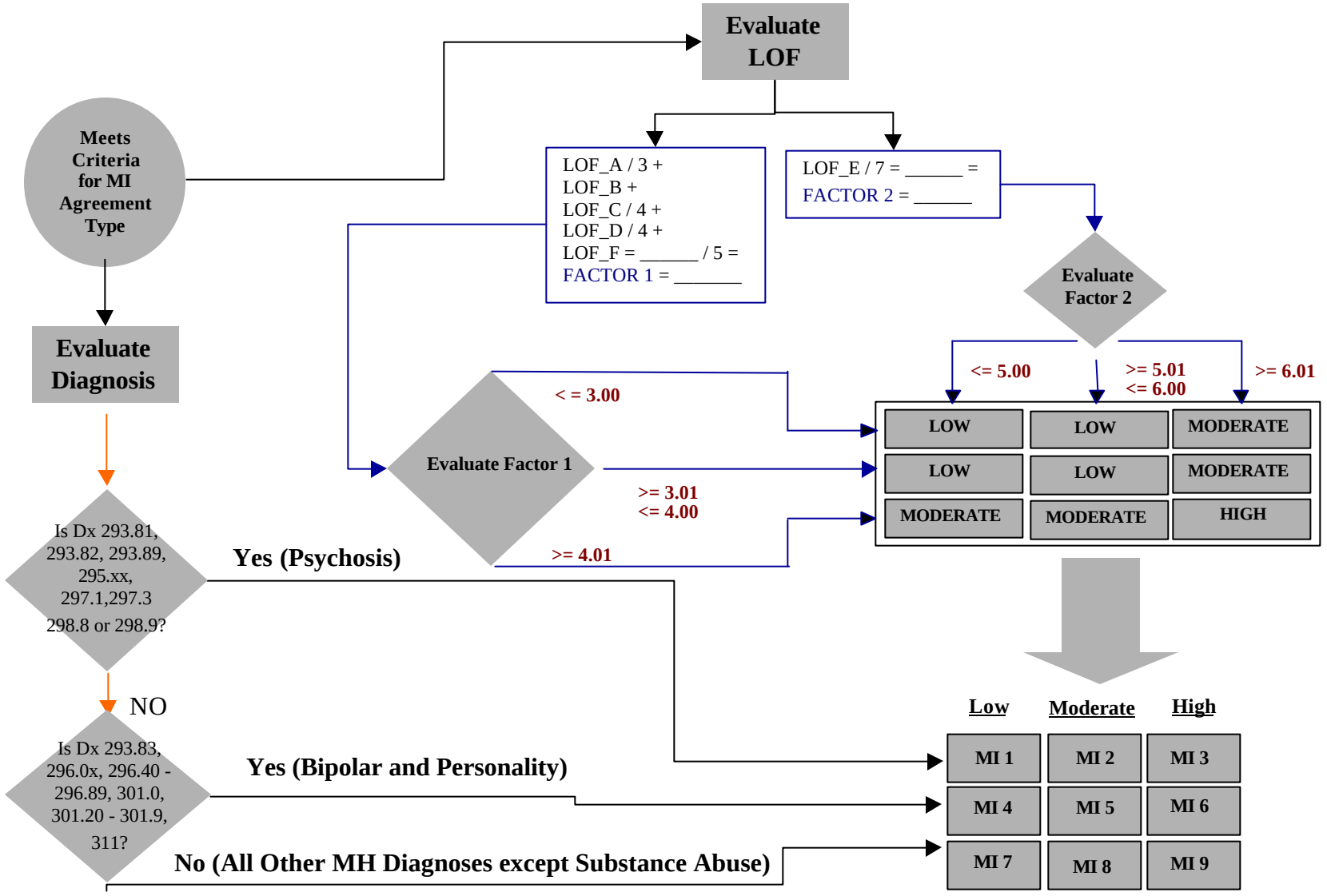
Appendix 2 (Continued)

Procedure Code	Service Name	Unit Definition	m Fee Unit Cost
X3043	CONJOINT COUNSELING/PSYCHOTHERAPY (15 MIN)	15 MIN	$19.61
X3044	FAMILY COUNSELING/PSYCHOTHERAPY (15 MIN)	15 MIN	$17.27
X3045	GROUP-COUNSELING/PSYCHOTHERAPY (15 MIN)	15 MIN	$6.41
X3046	CRISIS INTERVENTION (15 MIN)	15 MIN	$33.11
X3047	MEDICATION/SOMATIC TREATM (15 MIN)	15 MIN	$18.62
X3048	TRAINING IN ACTIVITIES OF DAILY LIVING (15 MIN)	15 MIN	$21.40
X3049	PARTIAL HOSPITALIZATION (15 MIN)	15 MIN	$8.55
X3050	CASE MANAGEMENT SERVICES (15 MIN)	15 MIN	$26.14
Z5025	CASE MGT- 2ND CASE MGR (15 MIN)	15 MIN	$13.07

Risk Level Flow Chart

Mental Illness (Proposed 2003 Model)

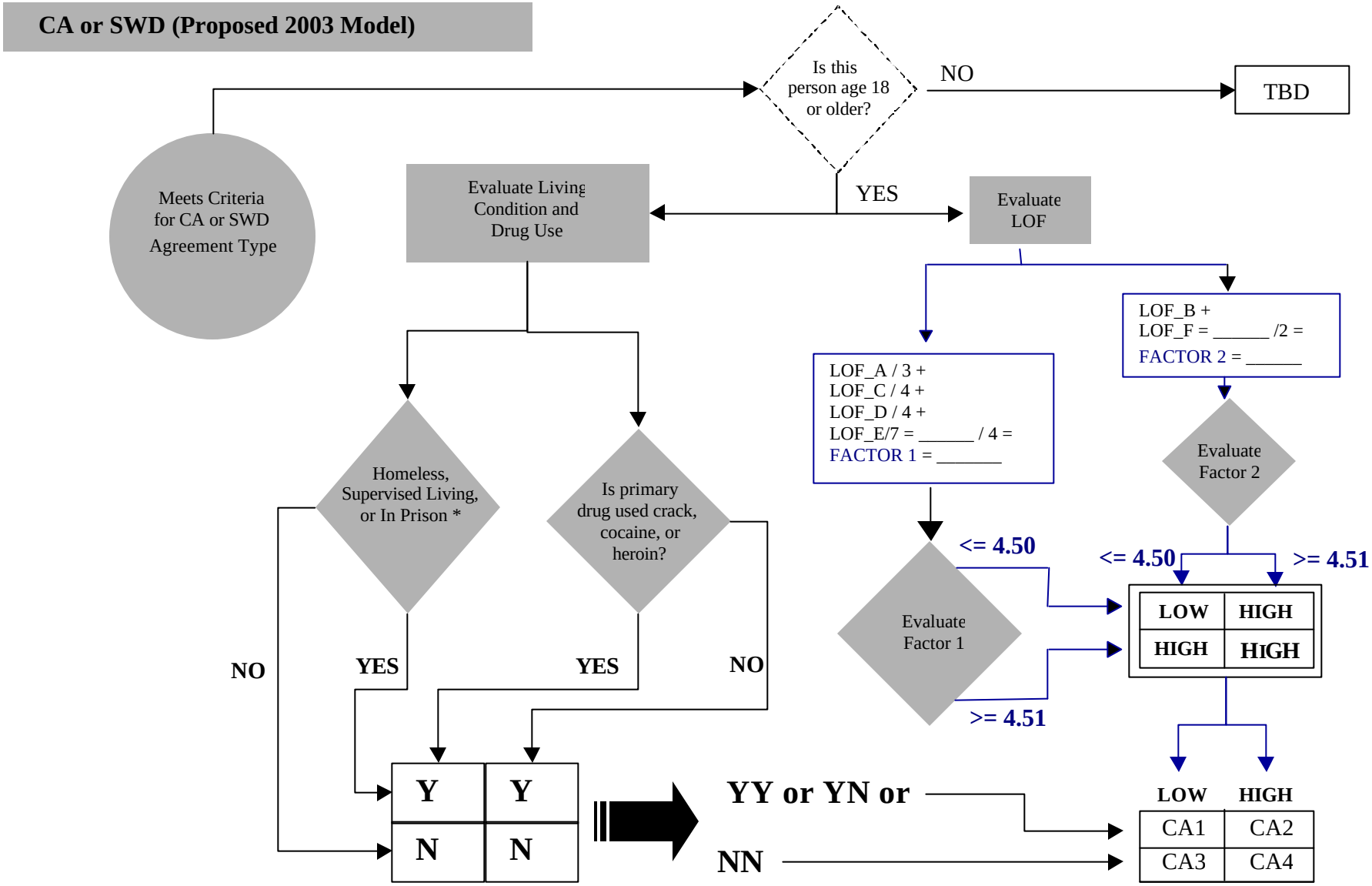
Appendix 3



Appendix 4

Risk Level Flow Chart

CA or SWD (Proposed 2003 Model)



* Yes (Not at Home) - Living Arrangement = 1 or 2 or 4
No (At Home) - Living Arrangement = 3 or 5

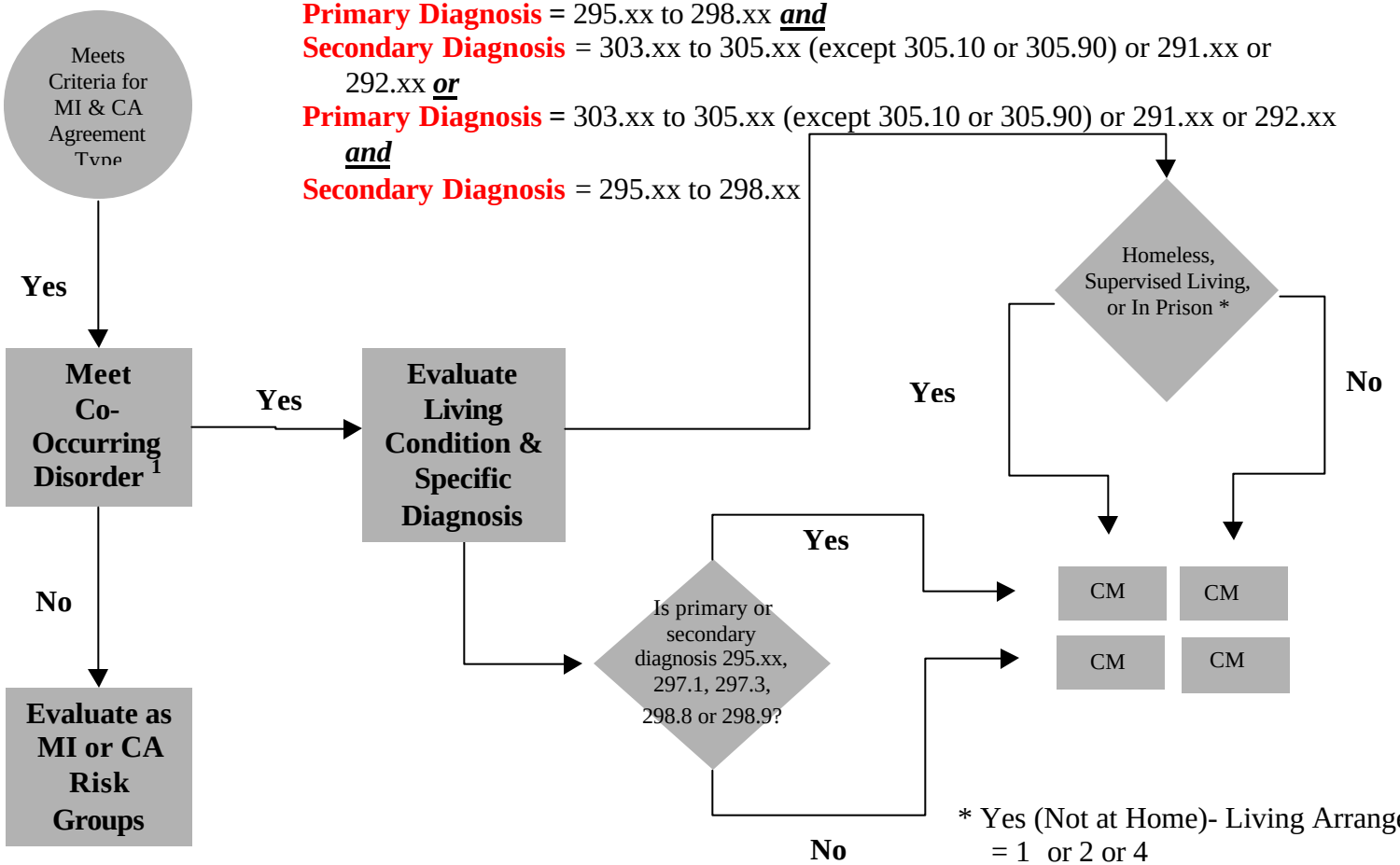
Risk Level Flow Chart

Co-Occurring Disorders (Proposed 2003)

Appendix 5

[1] Individuals must satisfy the following criteria to be considered as having a co-occurring disorder.

Primary Diagnosis = 295.xx to 298.xx ***and***
Secondary Diagnosis = 303.xx to 305.xx (except 305.10 or 305.90) or 291.xx or 292.xx ***or***
Primary Diagnosis = 303.xx to 305.xx (except 305.10 or 305.90) or 291.xx or 292.xx ***and***
Secondary Diagnosis = 295.xx to 298.xx



* Yes (Not at Home)- Living Arrangement = 1 or 2 or 4
No (At Home) - Living Arrangement = 3 or 5

Appendix 6

Table 10

Adults with Serious Mental Illness
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

Diagnostic Group		FY 01 Case Rates using Gross Cost Level of Functioning *Low*	*Moderate*	*High*	FY 01 Case Rates using Net Cost Level of Functioning *Low*	*Moderate*	*High*	Percentage Decrease Between Case Rates using Gross and Net Cost *Low*	*Moderate*	*High*
Psychotic		$ 11,956	$ 10,276	$ 7,300	$ 4,881	$ 3,216	$ 1,964	-59%	-69%	-73%
	Number of Individuals	470	2,135	6,140	470	2,135	6,140			
Bipolar & Personality		$ 5,736	$ 3,456	$ 3,008	$ 2,813	$ 1,370	$ 906	-51%	-60%	-70%
	Number of Individuals	366	1,689	4,063	366	1,689	4,063			
Other		$ 2,558	$ 2,151	$ 1,502	$ 864	$ 756	$ 552	-66%	-65%	-63%
	Number of Individuals	874	4,833	13,849	874	4,833	13,849			
		Wtd Avg Gross Case Rate		$ 3,660	Wtd Avg Net Case Rate		$ 1,171	Wtd Avg % Decrease		-68%
		Total Individuals		34,419	Total Individuals		34,419			

Note: 8619 individuals have negative net costs and 13 have $0 net costs out of the 34,419 total individuals. All recipients are from FY01.

Table 11

Recipients with Chronic Addictions
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

Living Condition/Substance		FY 01 Case Rates using Gross Cost Level of Functioning *Low*	*High*	FY 01 Case Rates using Net Cost Level of Functioning *Low*	*High*	Percentage Decrease Between Case Rates using Gross and Net Cost *Low*	*High*
Not at Home &/OR Crack/Cocaine/Heroin*		$ 2,634	$ 1,625	$ 2,128	$ 1,264	-19%	-22%
	Number of Recipients	888	3,702	888	3,702		
At Home & Not Crack/Cocaine/Heroin**		$ 2,267	$ 1,138	$ 1,352	$ 868	-40%	-24%
	Number of Recipients	1,152	11,271	1,152	11,271		
		Wtd Avg Gross Case Rate	$ 1,398	Wtd Avg Net Case Rate	$ 1,053	Wtd Avg % Decrease	-25%
		Total Recipients	17,013	Total Recipients	17,013		

Note: 1276 recipients have negative net costs and 11 have $0 net costs out of the 17,013 total recipients. All recipients are from FY01.

* Not at Home implies Living Arrangement 1, 2 or 4

** At Home implies Living Arrangement 3 or 5

Appendix 6 (continued)

Table 12

Chronically Addicted Women with Dependent Children or Pregnant
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

	FY 01 Case Rates using Gross Cost Level of Functioning		FY 01 Case Rates using Net Cost Level of Functioning		Percentage Decrease Between Case Rates using Gross and Net Cost	
Living Condition/Substance	***Low***	***High***	***Low***	***High***	***Low***	***High***
Not at Home &/OR Crack/Cocaine/Heroin*	$ 2,785	$ 2,258	$ 2,239	$ 1,189	-20%	-47%
Number of Recipients	132	549	132	549		
At Home & Not Crack/Cocaine/Heroin**	$ 2,355	$ 1,248	$ 1,598	$ 928	-32%	-26%
Number of Recipients	120	1,070	120	1,070		
	Wtd Avg Gross Case Rate	$ 1,724	Wtd Avg Net Case Rate	$ 1,140	Wtd Avg % Decrease	-34%
	Total Recipients	1,871	Total Recipients	1,871		

Note: 172 recipients have negative net costs out of the 1,871 total recipients. All recipients are from FY01.

* Not at Home implies Living Arrangement 1, 2 or 4

** At Home implies Living Arrangement 3 or 5

Table 13

Recipients with Co-Occurring Disorders of Serious Mental Illness and Chronic Addictions
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

	FY 01 Case Rates using Gross Cost Living Condition		FY 01 Case Rates using Net Cost Living Condition		Percentage Decrease Between Case Rates using Gross and Net Cost	
Diagnostic Group	***Not at Home****	***At Home*****	***Not at Home****	***At Home*****	***Not at Home****	***At Home*****
Psychotic	$ 14,554	$ 6,892	$ 4,451	$ 1,976	-69%	-71%
Number of Recipients	230	859	230	859		
Not Psychotic	$ 3,460	$ 2,537	$ 1,570	$ 733	-55%	-71%
Number of Recipients	185	1,306	185	1,306		
	Wtd Avg Gross Case Rate	$ 5,124	Wtd Avg Net Case Rate	$ 1,538	Wtd Avg % Decrease	-70%
	Total Recipients	2,580	Total Recipients	2,580		

Note: 636 recipients have negative net costs out of the 2,580 total recipients. All recipients are from FY01.

* Not at Home implies Living Arrangement 1, 2 or 4

** At Home implies Living Arrangement 3 or 5

Appendix 6 (continued)

Table 14

Remaining Risk Groups
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

Diagnostic Group		*FY 01 Average Gross Cost per Case*	*FY 01 Average Net Cost per Case*	*Percentage Decrease between Gross and Net Cost*
Deaf Chronic Addiction		$ 424	$ (1,178)	-378%
	Number of Recipients	5	5	
Deaf Mentally Ill		$ 6,520	$ (4,058)	-162%
	Number of Recipients	87	87	
Gamblers		$ 2,329	$ 2,018	-13%
	Number of Recipients	117	117	
Methadone		$ 994	$ (162)	-116%
	Number of Recipients	263	263	
State Operated Facility		$ 36,900	$ 16,685	-55%
	Number of Recipients	125	125	

Note: The number of recipients with negative and $0 net costs are 2 for DCA, 39 for DMI, 4 for Gamblers, 136 for MA, and 16 for SOF. All recipients are from FY01.

Appendix 7

Table 15

Adults with Serious Mental Illness
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

		FY 03 Case Rates using Net Cost Level of Functioning			FY03 Budget using FY01 Recipients Level of Functioning		
Diagnostic Group		***Low***	***Moderate***	***High***	***Low***	***Moderate***	***High***
Psychotic		$ 5,330	$ 3,512	$ 2,145	$ 2,505,058	$ 7,498,675	$ 13,169,950
	Number of Individuals	470	2,135	6,140			
Bipolar & Personality		$ 3,072	$ 1,496	$ 990	$ 1,124,219	$ 2,527,033	$ 4,021,266
	Number of Individuals	366	1,689	4,063			
Other		$ 943	$ 825	$ 603	$ 824,172	$ 3,988,811	$ 8,349,799
	Number of Individuals	874	4,833	13,849			
		Projected Wtd Avg Case Rate		$ 1,279	**Projected Budget**		**$ 44,008,983**
		Total Individuals		34,419	Total Individuals		34,419

Note: 8619 recipients have negative net costs and 13 have $0 net costs out of the 34,419 total recipients. All recipients are from FY01.

Appendix 7 (continued)

Table 16

Individuals with Chronic Addictions
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

	FY 03 Case Rates using Net Cost Level of Functioning		FY03 Budget using FY01 Recipients Level of Functioning	
Living Condition/Substance	***Low***	***High***	***Low***	***High***
Not at Home &/OR Crack/Cocaine/Heroin*	$ 2,323	$ 1,380	$ 2,063,085	$ 5,110,511
Number of Individuals	888	3,702		
At Home & Not Crack/Cocaine/Heroin**	$ 1,477	$ 948	$ 1,700,966	$ 10,688,699
Number of Individuals	1,152	11,271		
	Projected Wtd Avg Case Rate	$ 1,150	**Projected Budget**	**$ 19,563,262**
	Total Individuals	17,013	Total Individuals	17,013

Note: 1276 recipients have negative net costs and 11 have $0 net costs out of the 17,013 total recipients. All recipients are from FY01.

* Not at Home implies Living Arrangement 1, 2 or 4

** At Home implies Living Arrangement 3 or 5

Appendix 7 (continued)

Table 17

Chronically Addicted Women with Dependent Children or Pregnant
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

	FY 03 Case Rates using Net Cost Level of Functioning		FY03 Budget using FY01 Recipients Level of Functioning	
Living Condition/Substance	***Low***	***High***	***Low***	***High***
Not at Home &/OR Crack/Cocaine/Heroin*	$ 2,445	$ 1,298	$ 322,715	$ 712,765
Number of Individuals	132	549		
At Home & Not Crack/Cocaine/Heroin**	$ 1,745	$ 1,014	$ 209,456	$ 1,084,697
Number of Individuals	120	1,070		
Projected Wtd Avg Case Rate		$ 1,245	**Projected Budget**	**$ 2,329,632**
Total Individuals		1,871	Total Individuals	1,871

Note: 172 recipients have negative net costs out of the 1,871 total recipients. All recipients are from FY01.

* Not at Home implies Living Arrangement 1, 2 or 4

** At Home implies Living Arrangement 3 or 5

Appendix 7 (continued)

Table 18

Individuals with Co-Occurring Disorders of Serious Mental Illness and Chronic Addictions
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

		FY 03 Case Rates using Net Cost Living Condition		FY03 Budget using FY01 Recipients Level of Functioning	
Diagnostic Group		***Not at Home****	***At Home***	***Not at Home****	***At Home***
Psychotic		$ 4,860	$ 2,158	$ 1,117,860	$ 1,853,492
	Number of Individuals	230	859		
Not Psychotic		$ 1,714	$ 801	$ 317,101	$ 1,045,493
	Number of Individuals	185	1,306		
		Projected Wtd Avg Case Rate	$ 1,680	**Projected Budget**	**$ 4,333,945**
		Total Individuals	2,580	Total Individuals	2,580

Note: 636 recipients have negative net costs out of the 2,580 total recipients. All recipients are from FY01.

* Not at Home implies Living Arrangement 1, 2 or 4

** At Home implies Living Arrangement 3 or 5

Appendix 7 (continued)

Table 19

Remaining Risk Groups
Case Rates without Other TPL claims for Hamilton Center (Provider 405)

Diagnostic Group		*FY 03 Average Net Cost per Case*	*FY 03 Budget Using FY01 Individuals*
Deaf Chronic Addiction		$ (1,286)	$ (6,430)
	Number of Individuals	5	
Deaf Mentally Ill		$ (4,432)	$ (385,552)
	Number of Individuals	87	
Gamblers		$ 2,204	$ 257,843
	Number of Individuals	117	
Methadone		$ (177)	$ (46,480)
	Number of Individuals	263	
State Operated Facility		$ 18,220	$ 2,277,557
	Number of Individuals	125	
		Projected Budget	**$ 2,096,937**

Note: The number of recipients with negative and $0 net costs are 2 for DCA, 39 for DMI, 4 for Gamblers, 136 for MA, and 16 for SOF. All recipients are from FY01.

Total Budget with Table 10 $ 72,332,759

Total Budget without Table 10 $ 70,235,822

Appendix 8
Table 20
Total Reimbursement from DMHA

Provider	*1998 Reimbursement*[1]	*2001 Reimbursement*[2]	*Projected 2003 Reimbursement*[3]	*Percentage Change from 1998 to 2001*	*Percentage Change from 1998 to 2003*
401	$36,000	($2,589)	($2,828)	-107.2%	-107.9%
402	$5,875,681	$2,617,791	$2,858,693	-55.4%	-51.3%
403	$2,959,554	$1,256,919	$1,372,587	-57.5%	-53.6%
404	$9,946,360	$4,629,121	$5,055,116	-53.5%	-49.2%
405	$6,470,538	$3,080,330	$3,363,798	-52.4%	-48.0%
406	$4,436,170	$2,445,474	$2,670,519	-44.9%	-39.8%
407	$1,325,013	$577,831	$631,006	-56.4%	-52.4%
408	$4,548,311	$2,038,591	$2,226,192	-55.2%	-51.1%
409	$35,000	$16,685	$18,220	-52.3%	-47.9%
410	$2,107,108	$903,861	$987,039	-57.1%	-53.2%
411	$4,093,380	$2,023,683	$2,209,912	-50.6%	-46.0%
412	$280,000	$133,480	$145,764	-52.3%	-47.9%
413	$1,431,736	$602,569	$658,020	-57.9%	-54.0%
414	$2,598,588	$1,069,574	$1,168,002	-58.8%	-55.1%
415	$3,557,451	$1,646,895	$1,798,450	-53.7%	-49.4%
418	$2,874,654	$1,046,414	$1,142,710	-63.6%	-60.2%
419	$7,258,668	$3,530,931	$3,855,865	-51.4%	-46.9%
420	$2,884,917	$1,198,269	$1,308,539	-58.5%	-54.6%
421	$3,705,029	$1,473,351	$1,608,936	-60.2%	-56.6%
422	$6,867,242	$2,950,851	$3,222,403	-57.0%	-53.1%
423	$140,000	$66,740	$72,882	-52.3%	-47.9%
424	$70,000	$33,370	$36,441	-52.3%	-47.9%
425	$3,924,385	$1,827,858	$1,996,066	-53.4%	-49.1%
426	$3,706,874	$1,605,111	$1,752,821	-56.7%	-52.7%
427	$70,000	$33,370	$36,441	-52.3%	-47.9%
428	$3,540,013	$1,299,955	$1,419,583	-63.3%	-59.9%
430	$252,000	($215,736)	($235,589)	-185.6%	-193.5%
809	$741,953	$411,481	$449,348	-44.5%	-39.4%
826	$609,861	$414,131	$452,242	-32.1%	-25.8%
994	$891,598	$499,808	$545,803	-43.9%	-38.8%
996	$8,646,920	$4,836,501	$5,281,580	-44.1%	-38.9%
998	$13,081,579	$5,586,738	$6,100,858	-57.3%	-53.4%
999	$13,703,208	$6,649,289	$7,261,190	-51.5%	-47.0%
1001	$357,928	$160,527	$175,299	-55.2%	-51.0%
1007	$128,008	$90,717	$99,065	-29.1%	-22.6%
1017	$42,370	$22,331	$24,386	-47.3%	-42.4%
1018	$19,448,444	$9,368,053	$10,230,148	-51.8%	-47.4%
1389	$675,922	$307,002	$335,254	-54.6%	-50.4%
Total	$143,322,463	$66,237,274	$72,332,759	-53.8%	-49.5%

[1] Calculated using 1998 case rates and 2001 individuals

[2] Estimated using 2001 net case rates and 2001 individuals

[3] Estimated using 2003 net case rates and 2001 individuals

Appendix 8 (continued)
Table 21
Total Reimbursement from DMHA

Provider	*Risk Group*	*1998 Reimbursement*[1]	*2001 Reimbursement*[2]	*Projected 2003 Reimbursement*[3]	*Percentage Change from 1998 to 2001*	*Percentage Change from 1998 to 2003*
401	MA	$36,000	($2,589)	($2,828)	-107.2%	-107.9%
402	CA	$1,231,954	$441,826	$482,485	-64.1%	-60.8%
	CO	$0	$361,696	$394,982	0.0%	0.0%
	GAM	$3,600	$2,018	$2,204	-43.9%	-38.8%
	SMI	$4,483,908	$1,761,064	$1,923,126	-60.7%	-57.1%
	SWD	$156,219	$51,187	$55,897	-67.2%	-64.2%
403	CA	$436,699	$238,591	$260,548	-45.4%	-40.3%
	CO	$0	$53,957	$58,923	0.0%	0.0%
	SMI	$2,414,654	$915,572	$999,828	-62.1%	-58.6%
	SWD	$108,201	$48,798	$53,288	-54.9%	-50.8%
404	CA	$1,773,316	$1,101,465	$1,202,827	-37.9%	-32.2%
	GAM	$180,000	$100,904	$110,189	-43.9%	-38.8%
	SMI	$7,181,663	$3,021,681	$3,299,752	-57.9%	-54.1%
	SOF	$280,000	$133,480	$145,764	-52.3%	-47.9%
	SWD	$531,381	$271,591	$296,584	-48.9%	-44.2%
405	CA	$1,240,467	$701,193	$765,720	-43.5%	-38.3%
	CO	$0	$733	$801	0.0%	0.0%
	SMI	$3,877,960	$1,732,001	$1,891,389	-55.3%	-51.2%
	SOF	$1,295,000	$617,346	$674,157	-52.3%	-47.9%
	SWD	$57,111	$29,057	$31,731	-49.1%	-44.4%
406	CA	$533,999	$338,696	$369,864	-36.6%	-30.7%
	CO	$0	$258,123	$281,877	0.0%	0.0%
	SMI	$3,861,207	$1,829,216	$1,997,549	-52.6%	-48.3%
	SWD	$40,964	$19,439	$21,228	-52.5%	-48.2%
407	CA	$0	$868	$948	0.0%	0.0%
	CO	$0	$52,145	$56,943	0.0%	0.0%
	SMI	$1,325,013	$524,818	$573,114	-60.4%	-56.7%
408	CA	$586,997	$346,513	$378,401	-41.0%	-35.5%
	CO	$0	$186,403	$203,556	0.0%	0.0%
	SMI	$3,850,926	$1,447,710	$1,580,935	-62.4%	-58.9%
	SWD	$110,388	$57,966	$63,300	-47.5%	-42.7%
409	SOF	$35,000	$16,685	$18,220	-52.3%	-47.9%
410	CO	$0	$31,684	$34,600	0.0%	0.0%
	GAM	$3,600	$2,018	$2,204	-43.9%	-38.8%
	SMI	$2,103,508	$870,159	$950,235	-58.6%	-54.8%
411	CA	$1,031,903	$637,195	$695,832	-38.3%	-32.6%
	DCA	$4,500	($1,178)	($1,286)	-126.2%	-128.6%
	DMI	$157,500	($142,036)	($155,107)	-190.2%	-198.5%
	SMI	$2,899,477	$1,529,702	$1,670,473	-47.2%	-42.4%

CA	Individuals with Chronic Addictions
CO	Individuals with Co-Occurring Disorders of SMI and CA
DCA	Deaf Chronic Addiction
DMI	Deaf Mental Illness
GAM	Compulsive Gambler
MA	Methadone
SMI	Adults with Serious Mental Illness
SOF	State Operated Facility
SWD	Chronically Addicted Women with Dependent Children or Pregnant

Appendix 8 (continued)
Table 21
Total Reimbursement from DMHA

Provider	*Risk Group*	*1998 Reimbursement*[1]	*2001 Reimbursement*[2]	*Projected 2003 Reimbursement*[3]	*Percentage Change from 1998 to 2001*	*Percentage Change from 1998 to 2003*
412	SOF	$280,000	$133,480	$145,764	-52.3%	-47.9%
413	CA	$0	$5,211	$5,690	0.0%	0.0%
	CO	$0	$77,493	$84,624	0.0%	0.0%
	GAM	$7,200	$4,036	$4,408	-43.9%	-38.8%
	SMI	$1,203,546	$410,408	$448,175	-65.9%	-62.8%
	SOF	$210,000	$100,110	$109,323	-52.3%	-47.9%
	SWD	$10,990	$5,312	$5,800	-51.7%	-47.2%
414	CA	$193,223	$85,331	$93,184	-55.8%	-51.8%
	CO	$0	$175,160	$191,280	0.0%	0.0%
	SMI	$2,368,862	$793,967	$867,032	-66.5%	-63.4%
	SWD	$36,503	$15,116	$16,507	-58.6%	-54.8%
415	CO	$0	$5,184	$5,661	0.0%	0.0%
	SMI	$3,557,451	$1,641,711	$1,792,789	-53.9%	-49.6%
418	CA	$0	$2,704	$2,953	0.0%	0.0%
	CO	$0	$24,979	$27,277	0.0%	0.0%
	GAM	$7,200	$4,036	$4,408	-43.9%	-38.8%
	SMI	$2,797,454	$981,324	$1,071,631	-64.9%	-61.7%
	SOF	$70,000	$33,370	$36,441	-52.3%	-47.9%
419	CA	$1,298,417	$771,845	$842,874	-40.6%	-35.1%
	CO	$0	$254,704	$278,143	0.0%	0.0%
	SMI	$5,302,175	$2,192,405	$2,394,161	-58.7%	-54.8%
	SOF	$560,000	$266,960	$291,527	-52.3%	-47.9%
	SWD	$98,076	$45,017	$49,160	-54.1%	-49.9%
420	CA	$470,807	$237,580	$259,443	-49.5%	-44.9%
	CO	$0	$99,979	$109,180	0.0%	0.0%
	SMI	$2,292,964	$803,074	$876,977	-65.0%	-61.8%
	SOF	$105,000	$50,055	$54,661	-52.3%	-47.9%
	SWD	$16,146	$7,580	$8,278	-53.1%	-48.7%
421	CO	$0	$104,952	$114,610	0.0%	0.0%
	MA	$555,750	($39,974)	($43,653)	-107.2%	-107.9%
	SMI	$2,519,279	$1,108,043	$1,210,011	-56.0%	-52.0%
	SOF	$630,000	$300,330	$327,968	-52.3%	-47.9%
422	CA	$968,551	$504,672	$551,114	-47.9%	-43.1%
	CO	$0	$276,978	$302,467	0.0%	0.0%
	SMI	$5,393,443	$1,937,592	$2,115,899	-64.1%	-60.8%
	SOF	$245,000	$116,795	$127,543	-52.3%	-47.9%
	SWD	$260,248	$114,814	$125,379	-55.9%	-51.8%
423	SOF	$140,000	$66,740	$72,882	-52.3%	-47.9%
424	SOF	$70,000	$33,370	$36,441	-52.3%	-47.9%
425	CA	$949,174	$494,908	$540,452	-47.9%	-43.1%
	CO	$0	$262,301	$286,439	0.0%	0.0%
	GAM	$43,200	$24,217	$26,445	-43.9%	-38.8%
	SMI	$2,627,331	$906,342	$989,748	-65.5%	-62.3%
	SOF	$175,000	$83,425	$91,102	-52.3%	-47.9%
	SWD	$129,680	$56,665	$61,880	-56.3%	-52.3%
426	CA	$704,851	$401,486	$438,433	-43.0%	-37.8%
	SMI	$2,807,435	$1,110,448	$1,212,637	-60.4%	-56.8%
	SWD	$194,588	$93,176	$101,751	-52.1%	-47.7%
427	SOF	$70,000	$33,370	$36,441	-52.3%	-47.9%

Appendix 8 (continued)
Table 21
Total Reimbursement from DMHA

Provider	*Risk Group*	*1998 Reimbursement* [1]	*2001 Reimbursement*[2]	*Projected 2003 Reimbursement*[3]	*Percentage Change from 1998 to 2001*	*Percentage Change from 1998 to 2003*
428	CA	$505,823	$248,239	$271,083	-50.9%	-46.4%
	CO	$0	$128,580	$140,412	0.0%	0.0%
	SMI	$2,935,254	$880,846	$961,906	-70.0%	-67.2%
	SOF	$35,000	$16,685	$18,220	-52.3%	-47.9%
	SWD	$63,936	$25,605	$27,961	-60.0%	-56.3%
430	DCA	$18,000	($4,711)	($5,144)	-126.2%	-128.6%
	DMI	$234,000	($211,025)	($230,445)	-190.2%	-198.5%
809	CA	$620,171	$353,721	$386,272	-43.0%	-37.7%
	GAM	$3,600	$2,018	$2,204	-43.9%	-38.8%
	SWD	$118,182	$55,742	$60,872	-52.8%	-48.5%
826	CA	$446,043	$318,459	$347,765	-28.6%	-22.0%
	SWD	$163,818	$95,672	$104,477	-41.6%	-36.2%
994	CA	$828,013	$460,492	$502,869	-44.4%	-39.3%
	CO	$0	$9,410	$10,276	0.0%	0.0%
	SMI	$0	$864	$943	0.0%	0.0%
	SWD	$63,585	$29,043	$31,715	-54.3%	-50.1%
996	CA	$7,491,259	$4,284,376	$4,678,646	-42.8%	-37.5%
	CO	$0	$2,303	$2,515	0.0%	0.0%
	GAM	$154,800	$86,777	$94,763	-43.9%	-38.8%
	SMI	$0	$552	$603	0.0%	0.0%
	SWD	$1,000,861	$462,493	$505,054	-53.8%	-49.5%
998	CA	$3,532,461	$1,913,709	$2,089,818	-45.8%	-40.8%
	CO	$0	$304,619	$332,652	0.0%	0.0%
	SMI	$9,403,384	$3,301,669	$3,605,505	-64.9%	-61.7%
	SWD	$145,734	$66,741	$72,882	-54.2%	-50.0%
999	CA	$4,359,652	$2,548,919	$2,783,483	-41.5%	-36.2%
	CO	$0	$422,659	$461,555	0.0%	0.0%
	GAM	$18,000	$10,090	$11,019	-43.9%	-38.8%
	SMI	$8,547,604	$3,287,041	$3,589,531	-61.5%	-58.0%
	SWD	$777,952	$380,580	$415,603	-51.1%	-46.6%
1001	CO	$0	$14,239	$15,549	0.0%	0.0%
	SMI	$357,928	$146,288	$159,750	-59.1%	-55.4%
1007	CA	$124,807	$88,478	$96,620	-29.1%	-22.6%
	SWD	$3,201	$2,239	$2,445	-30.1%	-23.6%
1017	CA	$16,827	$10,581	$11,554	-37.1%	-31.3%
	SWD	$25,543	$11,750	$12,831	-54.0%	-49.8%
1018	CA	$2,398,227	$1,369,094	$1,495,085	-42.9%	-37.7%
	CO	$0	$860,442	$939,624	0.0%	0.0%
	SMI	$16,465,086	$6,867,360	$7,499,329	-58.3%	-54.5%
	SOF	$175,000	$83,425	$91,102	-52.3%	-47.9%
	SWD	$410,131	$187,732	$205,008	-54.2%	-50.0%
1389	CA	$3,818	$8,515	$9,299	123.0%	143.5%
	SMI	$672,104	$298,487	$325,955	-55.6%	-51.5%
Total		$143,322,463	$66,237,274	$72,332,759	-53.8%	-49.5%

[1] Calculated using 1998 case rates and 2001 individuals

[2] Estimated using 2001 net case rates and 2001 individuals

[3] Estimated using 2003 net case rates and 2001 individuals

APPENDIX 9

Actuarial Services Project Plan for Year One

Task	Time Frame	Division Conference Call	Project Bulletin	On-Site Meeting
Project Planning (Kick-off) Meeting	11/15/01	Week of 11/5/01 (prepare for 11/15/01 meeting)	Week of 11/19/01 (present project)	11/15/01 (discuss project with Division and Advisory Group)
Literature Review	11/1/01—11/23/01			
Data Request	10/18/01			
Database Construction	11/1/01—11/23/01	Week of 11/26/01 (overview data quality)		
Modeling for Risk Adjustment Groups	11/23/01—12/31/01	Week of 12/31/01 (present groups and prepare for 1/7/02 meeting)	Week of 1/7/02 (present groups)	Week of 1/7/02 (discuss groups with Division, Advisory Group, and public)
Net Cost (Case Rate) Calculations	11/23/01—1/31/02	Week of 1/28/01 (present rates and prepare for 2/11/02 meeting)		Week of 2/11/02 (discuss rates with Division, Advisory Group, and public)
Reinsurance Options	4/1/02—4/19/02	Week of 3/11/02 (discuss approach)		
Draft Report containing Risk Adjustment Groups and Case Rates	2/22/02	Week of 2/25/02 (discuss draft and prepare for 3/4/02 meeting)		Week of 3/4/02 (discuss draft with Division, Advisory Group, and public)
Final Report	4/1/02			

William M. Mercer, Incorporated November 15, 2001 Indiana Division of Mental Health

APPENDIX 10

Indiana Division of Mental Health and Addiction
Actuarial Services Project
Project Bulletin 1
November 20, 2001

The Indiana Division of Mental Health and Addiction uses case rates to purchase services for children and adults who have a mental illness or chronic addiction from community providers. Case rates are designed so that the lower the level of functioning of an individual, the more a provider gets paid for serving them.

In addition to factors such as diagnosis, the Division uses two assessment scales to determine how well an individual is functioning. For individuals under the age of 18, the Division uses the Hoosier Assurance Plan Instrument for Children (HAPI-C). The Hoosier Assurance Plan Instrument for Adults (HAPI-A) is used for those 18 years of age and older.

Rates for adults with a mental illness and adults with chronic addictions are paid to providers based on work done by William M. Mercer, Incorporated in 1998. Mercer has been hired to update the rates for adults and develop rates for children. In addition, Mercer will explore setting rates for some subsets of these populations, such as women who are pregnant and have a chronic addiction. Rates for adults will be developed in FY 2002 while rates for children will be developed in FY 2003.

In developing the rates, Mercer will keep all those who are interested in the process as informed as possible. This will be done through regular meetings with the Division, an advisory group, and the general public. Other project bulletins, like the present one, will be issued at milestones in the project.

In the rest of FY 2002, there will be three meetings with the Division, three with the advisory group, and three with the general public. Meetings with the different groups will take place on the same day.

The first meeting of each of the groups will take place in January 2002. Mercer will present factors, such as different scores on the HAPI-A, that have been found to be related to service utilization, and, in turn, cost. These factors will be used as the basis for setting case rates.

The second meeting of each of the groups will be in February 2002. Mercer will present tentative case rates. These are the amounts that will be paid to providers for serving adults with certain levels of functioning.

The third meeting of each of the groups will be in March 2002. Mercer will present a draft report providing all of the adult rates and describing how they were developed.

If there are any questions about the project, you may call Dr. Robert Hess at 602 522 6534 or send him an e-mail at rob.hess@mercer.com.

APPENDIX 10 (continued)

Indiana Division of Mental Health and Addiction
Actuarial Services Project – Adult Component
Project Bulletin 2
January 19, 2001

The Indiana Division of Mental Health and Addiction uses case rates to purchase services for adults who have a mental illness or chronic addiction from community providers. Case rates are designed so that, in general, the lower the level of functioning of an individual, the more a provider gets paid for serving them.

In addition to factors such as diagnosis, the Division uses an assessment scale to determine how well an individual is functioning. The Hoosier Assurance Plan Instrument for Adults (HAPI-A) is used for those 18 years of age and older.

Rates for adults with a mental illness and adults with chronic addictions are paid to providers based on work done by William M. Mercer, Incorporated in 1998. Mercer has been hired to update those rates. In addition, Mercer will explore setting rates for some subsets of these populations, such as women who are pregnant and have a chronic addiction.

On January 14, 2002, Mercer met with the Division, an advisory group, providers, advocates, and others to present the results of its initial data analyses and provide recommendations regarding the groups for which rates should be developed. Mercer recommended that the rates for four groups be based on factors associated with level of functioning. These groups are (1) adults with a mental illness, (2) adults with a chronic addiction, (3) single women who are addicted and pregnant or with dependent children, and (4) adults with co-occurring mental illness and chronic addiction.

Mercer recommended that rates for adults with a mental illness be based on their diagnosis and their level of functioning on the HAPI-A. A recommendation was made that rates for adults with chronic addiction, single women who are addicted and pregnant or with dependent children, and adults with co-occurring mental illness and chronic addiction be based on the type of substance used and living arrangement.

Mercer recommended that overall rates be established for several subsets of these groups but that case rates not be developed within them, primarily because of their small size. These groups are gamblers, adults who are deaf or hearing impaired, adults who are receiving methadone maintenance, and adults who have been discharged from state psychiatric hospitals under a state-operated facility (SOF) agreement.

The Division has given its approval to Mercer to develop rates for the recommended groups. In February, there will be a public meeting at which these rates will be presented.

If there are any questions about the project, you may call Dr. Robert Hess at 602 522 6534 or send him an e-mail at rob.hess@mercer.com.